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ABSTRACT

One hundred and sixty-five abstracts of articles appearing in periodicals and newspapers comprise this quarterly publication of annotated bibliographies on the subject of education in India. Some of the many topics covered by the documents include organization, curriculum and methods, educational psychology and sociology, academic achievement, teacher education, teaching methods, vocational and technical education, and women's and workers' education. Many of the studies covered are empirical. In addition, a special section is devoted to basic education. Author entries are arranged alphabetically under subject. Related documents are ED 041 683, ED 043 437, ED 049 989, and ED 067 334, and SO 005 322. (SJM)

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(Abstract Nos. 462 - 627)

Contains a Special Section

BASIC EDUCATION - II

(Abstract Nos. A102 - A121)

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INDIAN EDUCATIONAL MATERIAL

Vol 6 No 4 December 1971

ACADEMIC ACHIEVEMENT

462 ANDAL RAGHAVAN, KALINDI M S: Social acceptance in relation to achievement among graduate teacher trainees. Education 1971, 50(10), 17-23.

Social acceptance among 79 graduate student teachers in a training college was correlated with their achievement in theory, teaching, histrionic talents, and effective performance of camp duties. Social acceptance was measured on the basis of choice status of an individual in ten situations - going to a school for teaching practice, preparation of teaching aids, team teaching, preparation of a paper for a class seminar, project work, participation in athletic competition, performance of camp duties, excursions and visits, talent display activities, and emergency. The total social acceptance was found to be significantly correlated with achievement in theory, teaching, and camp duties. Though positively correlated, it was not significant in the case of histrionic talents. Acceptance in the ten situations was also positively related to one another. The study confirms the view that achievement is one of the basic factors preceding social acceptability.

463 BHAGIA S: Study of school-adjustment of pupils in relation to achievement, intelligence and sex. Rajasthan Board Journal of Education 1971, 7(2), 30-3.

The study was conducted on a sample of 150 pupils (32 girls and 118 boys) of class IX drawn from five secondary schools in Jodhpur. Ninety four pupils belonged to government schools while the other 56 belonged to private schools. The School Adjustment Inventory published by Manasayan, Delhi was used for measuring school adjustment, and Jalota's group test of mental ability for measuring intelligence. T-scores for achievement were obtained from the percentage of aggregate terminal examination marks of the pupils. Positive and significant correlations were found between all the five aspects of school adjustment, viz., academic, social, general, teacher, personal, and intelligence as well as achievement. The biserial correlations for sex were low and negligible. In view of the positive relationship found between school adjustment and scholastic achievement, it has been suggested that guidance and counselling services should help pupils solve their problems and achieve better adjustment to the school situations.

464 DHALIWAL A S: Achievement-motive as a non-intellectual predictor of scholastic attainment. Indian Journal of Psychology 1971, 46(3), 265-79. 24 ref.

The purpose of the study was to observe the effect of achievement-motive on academic attainment. Jalota's (1964) verbal test of general mental ability and the Hindi version of Edwards Personal Preference Schedule (EPPS) scales (Bhatnagar 1966) were administered to 502 ninth class students of age range 14-16 years studying in 6 government higher secondary rural schools in Ferozepur district, to measure intelligence and achievement-motive as a personality need. Examination marks in five school subjects namely English, mathematics, science, social studies, and mother-tongue constituted the indices of academic achievement. The data were analysed and from the results the following conclusions are drawn: 1) effectiveness of achievement-motive as a non-intellectual predictor of academic achievement depends upon the index of predictive validity of the intellectual variable, the influence of which is held constant; research in this area needs to be put on a rigorous scientific footing; consistent findings will not be forthcoming unless and until the degree of relationship between intelligence and achievement is universally agreed upon; 2) measure of intelligence taken on a verbal test is a potent factor - and perhaps the only factor of academic achievement.

465 PANDEY U D, SINGH R P: Effect of sex and culture on achievement motivation, religious beliefs and religious practices. Journal of Psychological Researches 1971, 15(2), 49-52. 10 ref.

Eighty four students, Adivasi boys (AB) Adivasi girls (AG), non-adivasi boys (NB) and non-adivasi girls (NG), 21 in each group, studying in X and XI classes of a school in Lohardaga (Ranchi) constituted the sample. The average age of pupils was 15 years. Religious Belief Scales (RBS) to measure extrinsic religious beliefs, Religious Practices Scale (RPS) to measure performances of religious practices, Achievement Motivation Scale (AMS) adopted by Sinha from Bending's Factor Analytic Scale of Need Achievement, to measure need for achievement were applied to the sample in groups of twenty. Information regarding last annual examination marks were elicited. The findings revealed that 1) the correlations between AMS, academic achievement, RBS and RPS were highly significant; thus, students having high need for achievement score high in academic performance; 2) RBS and RPS were not significantly related to AMS and academic achievement, indicating that religious beliefs and practices do not influence achievement motivation and school performances; 3) non-adivasis had greater achievement motivation and lower religious beliefs than Adivasi students; girls, particularly, had higher need for achievement and religious beliefs than boys; 4) Adivasi girls were more religious than non-adivasi boys and girls.

466 SHARMA M L: Organizational climate and pupil achievement Rajasthan Board Journal of Education 1971, 7(2), 34-40. 7 ref.

Gives an account of the six types of organizational climate - open, autonomous, controlled, familiar, paternal, closed as well as the eight sub-tests of organizational climate - teacher's behaviour: disengagement, hindrance, esprit, intimacy; principal's behaviour: aloofness, production emphasis, thrust, and consideration as defined by Halpin and Croft. Organizational climate in schools has been referred to as that condition in the school which results from the social interaction between the teachers and the principal. The results of the studies made by Andrews, Millar, and the author himself on the relationship between the organizational climate of schools and pupil achievement have been given. The studies showed mutually contradictory results; however, the following conclusions have been inferred: 1) organizational climate plays an important role in pupil achievement; 2) teachers in schools are motivated more by the group than by the leader in so far as task-oriented goals are concerned; 3) principal's leadership role plays an important part in organizational goal attainment; 4) higher levels of pupil achievement are found in those schools where teachers have high level social need satisfaction which may not be necessarily associated with task-accomplishment; 5) principals' leadership behaviour should be characterized by high level of consideration and thrust; 6) open organizational climate is conducive to the attainment of higher levels of pupil achievement and social-need satisfaction of the staff.

467 VASANTHA RAMKUMAR: Self-concept and achievement of forward and backward community students. Education and Psychology Review 1971, 11(2-3), 40-6. 9 ref.

The self concept was measured by administering Q sort measure prepared for the study. The non-verbal test of intelligence was administered to obtain intelligence test scores. Information about the community to which the students belonged was collected through a data sheet. The sample consisted of 686 predegree students -

362 belonging to forward community and 324 to backward community. It was found that forward and backward community students differ significantly in their self-concept and achievement scores for the whole group as well as for different levels of intelligence and achievement. It is suggested that guidance and counselling should be instituted to change the self-concept of backward community students in the desired direction.

ADMINISTRATION AND ORGANIZATION

468 GOVINDARAJAN T N: Organizational structure and leadership performance. Technical Teacher 1971, 5, 23-5. 8 ref.

Emphasises the importance of understanding the organizational structure and its relationship with leadership performance. The theories of organisation have been briefly discussed and a schematic representation of teacher-pupil relationship has been made emphasising the functional leadership of the teacher. Some of the guidelines given for designing the organizational structure include the following points: 1) conceiving an organizational structure as a social unit gives a deep insight into the dynamics of organizational behaviour; 2) leadership performance relates to the complexity of organizational structure and simplifies the process of organizational functioning; 3) uniform styles of leadership at all levels produces desirable results and enhances the status of an organisation; 4) awareness of current thinking on leadership by the management and the faculty creates a leadership climate; 5) coordination between the faculty and management provides a forum to exchange views on execution of allotted work.

ADULT EDUCATION

469 GUPTA N R: Manual for adult literacy teachers. New Delhi, Indian Adult Education Association, 1971. 184p.

The objective of the manual is to provide adult literacy teachers with the fundamental principles that are involved in the education of adults. The following are the chapter headings: 1) why adult literacy; 2) magnitude of the problem of illiteracy; 3) processes of adult learning; 4) organization of adult literacy classes; 5) reading materials for adult literacy classes; 6) methods of adult literacy; 7) audio-visual aids in adult literacy and adult education; 8) role of libraries in adult literacy and adult education; 9) adult literacy, a team work; 10) example is better than precept; 11) follow-up programmes; 12) testing the progress of the learners; 13) adult literacy records. The annexures include an outline syllabus of functional literacy, and statistics of literacy in India.

470 GUPTA N R: Population education for adults. Indian Journal of Adult Education 1971, 32(10), 3-6, 19.

Integration of population education with the programme of adult literacy and adult education has been suggested. This would involve: 1) developing a syllabus for such a programme right from the adult literacy stage, both for rural and urban population; 2) preparation and production of a primer giving information on family and health welfare, programmes of child care, home nursing, child health, maternity, nutrition, etc.; 3) preparation and production of a number of simple, illustrated material on different subjects of interest for supplementary reading; 4) organization of teacher training programmes, correspondence courses for neo-literates, etc.; 5) planning, preparation and production of audio-visual aids and other mass educational devices. The steps suggested for the organization and the implementation of the overall programme are: 1) survey and research in the local socio-cultural aspects of population programmes; 2) education regarding dangers of over population and need for population control; 3) counselling service for health and family planning through personal contacts; 4) health and family planning education including production of reading and audio-visual material.

471 INDIA. MINISTRY OF EDUCATION AND SOCIAL WELFARE: Farmers' functional literacy project, report of national workshop, January 11-19, 1971. New Delhi, the Ministry, 1971. iv, 82p.

Comprehensive agenda papers on the following items were prepared and presented in the national workshop: 1) India's experience in implementing the programme; 2) progress of functional literacy projects in the States; 3) orientation and training of personnel engaged in farmers' functional literacy; 4) materials, media and methods; 5) role of radio in functional literacy. In addition, some papers on international experience were also presented. Five study groups were formed to discuss the following aspects: 1) orientation and training; 2) materials, media and methods; 3) mass media including role of radio in literacy; 4) research, experimentation and evaluation; 5) administration, organization and finance. The reports of these groups were adopted by the national workshop. The final report of the national workshop is given.

472 Integrated adult education programme for development stressed. Indian Journal of Adult Education 1971, 32(10), 1.

The Asian Regional Seminar on 'polyvalent adult education centres', held at Bombay during September 1971, felt that an integrated adult education programme will increase students' productive capacity and make them better individuals. It called for the introduction of polyvalent education in urban and industrial areas as the needs of the adults in these areas were polyvalent in nature. Polyvalent education means integration of vocational instruction with general education. The seminar recommended that a committee of experts on education, planning and administration be set up at national level to examine the present programmes in the light of the polyvalent concept and suggest the introduction of elements of this concept in the existing institutions. The adult education programmes should be expanded in a realistic manner to meet the requirements of the growing number of out-of-school youth. The Asian countries should re-examine the adult education programmes to determine the role of polyvalent adult education in national development plans. Other recommendations include strengthening of UNESCO in its programmes of adult education, holding international and regional conferences, etc.

473 JESSUP F W: Preparation for life-long education. Indian Journal of Adult Education 1971, 32(11), 3, 4, 20, 21.

The need for life-long education has been pointed out. It has been regretted that it is not given much importance in educational planning as education is not seen as a continuum. The apathy towards continuing education has been attributed to early specialization, the rigidity of many examination systems, the remoteness of school from the affairs of everyday life, and the belief created in the minds of school-leaving and college leaving students that they finished the terminal phase of their education. The teacher's role in guiding pupils in the direction of life-long learning has been emphasized. It has been suggested that teachers should be more conscious of the continuum in education, should see their work as part of a larger whole, and should think about the implications of total education. Professional training of teachers should accordingly be reoriented. It has been concluded that the practical manifestation of the concept of life-long learning depends not on educators and educational institutions, but on the society of which they form a part.

474 **INSTITUTE OF APPLIED MANPOWER RESEARCH, NEW DELHI:** Brain drain study, phase 1: analysis of ordinary passports issued during 1960-1967. New Delhi, the Institute, 1970. vi, 57p.

This report contains the results of the first phase of a study undertaken on behalf of the Inter-Ministerial group on the brain drain. The purpose of the first phase of the study was to identify passport holders of certain specified educational qualifications (diploma or above in engineering/technology, medicine, Master's degree or above in science, Bachelor's degree or above in teaching, etc.). The following conclusions have been drawn: 1) the number of persons who left the country during the specified period is about 44,900; 2) the actual percentage of postgraduate scientists who left the country to the total outturn during the period is about 14%; 3) in the case of engineers, the gross outflow is one-fifth of the total outturn and in the case of medical doctors it is one-fourth; 4) the number of engineers issued passports during 1960-1967 was equal to 13.2% of the total stock of engineering graduates in the country; the number of medical doctors issued passports was equal to 10.8% of the total stock; 5) the total stock of Indian scientific and technical personnel abroad at the end of 1967 is about 40,000; 6) the annual outflow during 1966 and 1967 of engineers and doctors is about 25% and 30% respectively of the annual outturn. There is urgent need to study more closely the problem of outflow of engineers and doctors.

475 Migration of IIT engineers, a preliminary study. Technical Manpower 1971, 13(10), 1-3.

The study aims to find out the proportion of IIT engineering graduates among the total engineers who have gone abroad during the past 14-15 years. IIT engineers constitute 10.4% of the total engineers on the overseas register. The findings are: 1) the IIT graduates in engineering are migrating abroad in larger proportion than the engineers graduating from other institutions; 2) it is easier for the IIT graduates to get admission in foreign universities, but it is also easier for them to get employment in India, eventhough the employment prospects have slightly changed since 1968; 3) about 75% of the overseas IIT students had gone to UK, USA and West Germany almost in equal proportions, i.e. about 25% each; 4) among those who have gone abroad, about three-fourths had left the country within two years after their completion of IIT courses; 5) according to the national register study, about 58% of the overseas IIT graduates have returned to India compared to about 49% for all engineering graduates in the sample.

476 RAY K: Unemployment and brain drain. Economic and Political Weekly 1971, 6(39), 2059-63. 5 ref.

Unemployment and brain drain in a developing country reflect non-utilization of human resources. It is estimated that over 100,000 persons with scientific, engineering, and medical qualifications are unemployed in India, and that about 30,000 more are abroad. The potential contributions of the unutilised work force need to be considered in planning for national reconstruction. It is pointed out that several national tasks requiring work by scientists and engineers have remained unattended to. Thus the sectors of education, research, industry, extension, resource exploration, etc. can utilise the unutilised manpower available. Certain areas of work which need immediate attention have been listed and it is estimated that about 150,000 scientific and engineering personnel will be required to attend to these tasks. It is shown that the cost involved is also not high.

COURSES OF STUDY

477 CHAITANYA: Teaching of sciences in Indian universities. Assam Tribune 17 October 1971, p. 4, cols. 4-7. 1400 words.

The need for improving the present condition of basic research in sciences in universities has been pointed out. It has been suggested that 1) elementary research experience should be encouraged at the high school level; 2) the method of science teaching which has degenerated into book teaching should be changed, and it should inspire students to discuss, interpret and explore new horizons; 3) no rigid formula should be set for the proportion of research in teaching programmes. Though foreign assistance is necessary, a scientific base at home can only fulfil the country's needs and aspirations.

478 INDO-US CONFERENCE ON EDUCATION AND RESEARCH IN LIFE SCIENCES, BANGALORE, JULY 2, 1971: / Recommendations /. Science Resource Letter 1971, 4(3), 7, 8.

The conference recommended that 1) the B.Sc. programme be modified to become broad-based general purpose science degree including mathematics, chemistry, physics, humanities and social sciences; 2) masters degree students be encouraged to pursue some topics in depth while maintaining competence across the spectrum of biology; 3) stress be laid on the symbiosis of basic and applied research; molecular biology, environmental studies, marine biology are possible fields for future work; 4) institutions be given grants on the basis of evaluations of proposals; 5) counselling guidance be given to Ph.D. students; research in inter-disciplinary areas be encouraged; 6) binational projects as well as conferences and seminars be encouraged in order to improve research activities; 7) continuous year-round sequence of biology institutes be conducted to improve teaching methods; 8) outstanding teachers be recognised by awards and promotions; 9) without giving undue importance to annual and external examinations, more reliance be laid on internal assessment; practical skills also should be evaluated by internal assessment; 10) integration of botany and zoology departments be achieved wherever feasible; 11) chairmanship of departments be given by rotation; and voluntary evaluation of departments is desirable; 12) dean of research activities be appointed to encourage research of interdisciplinary nature and to coordinate the research activities of the university.

479 NAIK J A: Area studies in Indian universities. Economic and Political Weekly 1971, 6(46), 2091, 2092.

Regretting that the intended Soviet studies department at the Bombay University has not started functioning, it is suggested that this department could be established at the Delhi University and together with the Chinese studies department it could make a centre for communist studies. Pointing out the need to develop area studies in universities, it is observed that area studies cannot be developed in the existing generalist departments of political sciences, history, economics, sociology, etc. In area studies, more stress should be laid on economy, foreign trade and foreign policy of the concerned culture, etc. The history syllabus of universities in India is outdated. American, Russian, Chinese and South East Asian history should find place in the syllabus. Similarly, the emphasis in political science teaching should change from political theory to political systems and foreign policy studies. Like in technical education, there should be specialisation in social sciences also.

480 New M.Sc. courses with industrial bias ∠News Item_/. Hindu 3 November 1971. p. 11, cols. 5, 6. 500 words.

The new courses started by the Madras University at various parts of the State for fulfilling the needs of the industrial and economic development of the country are: 1) M.Sc. courses in design and production of thermal power equipment, aeronautical engineering and ground water engineering, and harbour and coastal engineering; 2) post-graduate diploma courses in industrial engineering, physical medicine and rehabilitation of the handicapped; 3) M.D. courses in forensic medicine, dental surgery; 4) part time B.E.

courses for diploma holders and B.Sc. applied science course to turn out middle level scientific and technical personnel required by various industries; 5) diploma courses in psychological medicine and clinical psychology; 6) master's degree in physical education, management studies; 7) degree in business management; 8) certificate and diploma courses in Kannada, Malayalam, Telugu and Urdu;

CURRICULUM

481 **PATEL V**: Work based education [Editorial]. Quest in Education 1971, 8(4), 187, 188.

Referring to the decision of Maharashtra Government for introducing a revised school curriculum in higher classes with work experience as its integral part, it is criticised that the State Board of Secondary Education has included work experience only as an additional subject. Mutual activity undertaken should not only be socially useful and productive but should satisfy the factors viz. 1) a clear consciousness of the problem on hand; 2) formation of work plan and the choice of appropriate means; 3) intelligent execution; 4) self criticism and evaluation; and 5) formation of a better plan of work on the basis of evaluation. The mutual activity should be systematically organised and teachers, administrators etc. should study in detail all the implications of work experience. Work based education would be possible by imparting work experience in schools from the point of view of developing skills for productivity which would influence the mind of the teacher and the educand and promote the welfare of the community.

482 **SHARMA P C**: Towards improving laboratory instruction in physics. Educational India, 1971, 38(4), 123, 124, 144, cover page III. 4 ref.

The following guiding principles have been suggested for formulating objectives of teaching: 1) objective is the end in itself while course is the means to achieve this end; 2) the extent of freedom to be allowed and restrictions to be imposed during examinations should be clearly stated in the objective; 3) the statement of the objectives should not include words arousing doubts in the minds of teachers or pupils; 4) many objectives should be formulated for describing the terminal behaviour of pupils; 5) the objective should also state the criterion of success. A specimen illustration demonstrating the use of these principles for writing the objectives of laboratory instruction in physics has been given.

483 **SINHA D K:** Trends in the teaching of Algebra in schools. Mathematics Education 1971, 5(3), 51-3. 10 ref.

The historical development of algebra has been traced. The school curriculum of algebra should include some unifying topics that would not only enable the taught to learn mathematics at a fast rate, but also help him in integrating the study of algebra with other branches of mathematics and learning too. This requires inclusion of topics like sets, relations, mappings, etc., in any book of algebra. But the treatment has to be informal and intuitive at the elementary and middle levels, while it has to be a bit formal at the high school level.

484 **WALES C E:** Design of curricula. Technical Teacher 1971, 5, 1-9. 8 ref.

The following steps are involved in the design process: 1) identifying the need for design work; 2) stating the constraints that limit the work of the designer such as i) time available to learn about intellectual operations, psychological principles, communication activities measurement techniques and time available for design work, ii) his basic ability in his discipline, iii) the ability and background of pupils, iv) the existing system, and v) the attitude and support of the administration and faculty; 3) stating the goals of the system to be designed in order to a) help the student learn the use of intellectual abilities viz. recall, manipulate, translate, interpret, predict and choose the concepts required to solve a problem, b) help the student learn to solve open-ended problems, to think for himself, gather information communicate ideas and use the three intellectual modes - analysis, synthesis and evaluation, c) provide each student with an opportunity to play the role of professional in the discipline he is studying, d) provide course work; 4) generalising possible solutions for his system using communication activities as the principal components of the solution and organising the class around psychological principles; and 5) analysing the system in a detailed manner and arranging his sylabus concept by concept from simple to complicated, synthesising the system, and evaluating the system using measurement techniques.

ECONOMICS OF EDUCATION

485 **PADMANABHAN C B:** Cost analysis in educational administration. Yojana 1971, 15(23), 11, 12.

Analysis of the cost of education cannot only show whether the best use is being made of the limited resources but also indicate the possibilities for making better use of them. It has been found that the per capita rate of growth of expenditure on education between 1960-65 was twice as much as the rate of growth of GNP in India per annum. The expenditure on education incurred by the State governments appears in the budgets of their agriculture, health and labour departments in addition to the budgets of their education departments. Thus if total expenditure is considered, India spends a major part of the budget on primary education. However, it cannot be concluded that primary education is getting more attention than other levels. The real test for adequacy of efforts for any level of education is the expenditure per pupil and the items on which it is spent in addition to paying the salary of the teachers. Further, the per pupil cost at any level can be expressed as a multiple of the per capita level of income. It is noticed that India spends 179.3% of its per capita income on the third level of education while it spends only 7.1% on the first level. While projecting future expenditure on education, it is necessary to ensure that a reasonable amount is spent on items like teaching aids, library, laboratory, etc. Thus the planning units in the directorates of education in every State in India should take into account the total expenditure incurred by all departments in a comprehensive way, its distribution for different levels of education, the unit expenditure for every level of education and the expenditure incurred on items like teachers' salary and equipment.

EDUCATION : GENERAL

486 **ADISESHIAH M S:** Tamil Nadu education in seventies. Educational Review 1971, 77(8), 187-90; 77(10), 229-31.

The general achievements in the field of education in Tamil Nadu have been briefly stated. However, the drawbacks are: 1) absence of official statistics and of critical appraisals dealing with weakness of the educational system; 2) wastage in education mainly due to stagnation and dropouts; 3) economic backwardness of the State; 4) defective curricula and examination system; 5) wide disparity between school and out of school education, between formal and non-formal training.

Tamil Nadu education for the 70s should promote the following: 1) the hours of schooling should be changed in keeping with the family needs in poor urban and rural areas in order to improve real enrolment and retention of pupils; 2) syllabus and teaching programmes should be made flexible; uniform texts and teaching materials should be provided for the subjects - Tamil, arithmetic, history, geography, science and international understanding whereas for all other subjects each school should be allowed to develop its own teaching and learning materials; 3) schools should follow the learning paths of each individual pupil and the classes must be made manageable with appropriate teacher-pupil ratios; 4) modern technology should be introduced in secondary, technical and higher education stages; 5) the examinations should be reformed and due place given to periodic evaluation, records of each student's learning attainments, etc.; 6) illiteracy should be eradicated; 7) educational system from primary to the highest level should be directed to help increase the production; 8) the government should undertake systems planning of Tamil Nadu; 9) the State Government should present annually to the legislature a critical appraisal including information of the problems, difficulties and setbacks of education during the year, and a summary of the gains and losses in the educational development during the year.

487 AGYAJIT SINGH: Evaluating the innovations of the schools. Educational India 1971, 38(5), 149-51.

Any innovation to be adopted in schools requires an interim evaluation before it is implemented. The main characteristics essential for the interim evaluation are the authenticity of the innovation in schools, the reasons for adaptations of the innovations, the durability of the system as a component of the school. The factors to be considered for innovation are: 1) the allocation of time to be altered within the classroom for the purpose of introducing the innovation; 2) the space required for implementation; 3) the supply of equipment and materials needed; 4) the legitimacy of the programme; and 5) the views of teachers, administrators and community at large towards the innovation. However, as the success of the innovation depends on the evaluation system of the school, tests should be developed to measure the purpose of the innovation, and the progress of the students should be examined to see if they have been accommodated to the innovation. Evaluation of an innovation should include an assessment of teachers and of schools' attitude to change.

488 CHAITANYA: Education in cities needs change. Assam Tribune 21 November 1971, p. 4, cols. 3-6. 1280 words.

The problem of socially and economically backward rural children to adjust to city schools meant for middle class children calls for a radical change in the pattern of city education. Universities and teacher education institutions should be involved in this task. Field research into the precise nature of the problems of those students is necessary, and a clear understanding of the educational alternative ~~attention~~ is desirable. The structure of the city school system should be so changed as to enable the young to get adjusted to various aspects of city life.

489 D'SOUZA A A: Education through interest. Rajasthan Board Journal of Education 1971, 7(2), 25-8.

Child-centered education with specific attention to pupils' interests has been underlined as the only means for purposeful learning by students. Though most of the educationists accept Mr. Branford's suggestion that the curriculum should cater for the questioning interests through the sciences, for the practical interests through the arts and crafts, and for the human interests through the humanities, it is generally not realized in practice. Children's interests can also be classified into individual and social, the former leading to the latter. The Dalton Plan, the Project Method, the Play Way, the Heuristic Method, etc. are all attempts to make learning an interesting, purposeful and active endeavour which calls into play the whole child, instead of only his mind or memory.

490 MASHRUWALA K G: Towards new educational pattern. Ahmedabad, Navajivan Publishing House, 1971. vii, 88p.

The book is a collection of articles on all aspects of education written by the author who was a distinguished coworker of Mahatma Gandhi. The book is divided into seven sections. The first two sections contain the author's own ideas about the system of Basic education. The third section deals with students and teachers. The fourth is on religious education. The fifth section deals with various matters relating to the language problem. The sixth is on higher education and secondary education, and the last section relates to national language.

491 **PATEL M S:** Change and innovation in education. Journal of Education and Psychology 1971, 29(2), 90-5.

Innovation in education at all levels has been stressed as essential for the national development. Thus, the quality of teaching and learning must be stepped up to cater to the demands of the modern society. A planned change could be implemented to overcome resistance to change and innovation. Following suggestions have been offered for making educational systems at all levels innovative and responsive to social needs: 1) teachers, educators and administrators should adopt a scientific and analytical attitude towards educational problems by establishing research as the base for educational practice; they should develop problem-awareness and conduct action research and apply innovations to practice and evaluate its impact on educational process; 2) basic action and institutional research should be conducted for change and innovation; colleges of education should realise the needs and aspirations of schools and society and innovate new practices and orient teachers accordingly; 3) the educational personnel should be professionalized; the attitude of creativity should be fostered among teachers; 4) the colleges of education should play a leading role in the national development; the programme of practical work should find a vital place in the preparation of personnel for teaching; teacher education programme should also be made rich and dynamic.

492 Pattern of education /_ Editorial_/. Hindu 1 December 1971, p. 8, cols. 1-3. 600 words.

The present one year pre-university course which came into use as the result of the Secondary Education Commission's recommendation for a three year degree course was found quite unsatisfactory. The reformers in Tamil Nadu, therefore, seem to be in favour of shifting to the Kerala pattern of ten year school, followed by two year pre-university and three year first degree. In fact the Education Commission (1966) was strongly opposed to the idea of a pre-university course taught in the colleges, and proposed a ten year school period followed by two years of higher secondary studies in the high schools. But as the majority of the schools were ill-equipped to teach the higher secondary course, the colleges had to take up pre-university teaching. The problem could probably be solved by permitting certain qualified schools to teach the intermediate or pre-university course of two years in addition to the colleges. There could even be separate junior colleges for the purpose. It is necessary that the present anomalous one year course which defeats so many students should be replaced by a two year course.

493 **SEMINAR ON SCHOOL IMPROVEMENT IN THE SEVENTIES, BANGALORE, 26-28 SEPTEMBER 1971:** / Recommendations /. Bulletin of the West Bengal Headmasters' Association 1971, 20(9), 332-4.

Some of the recommendations are: 1) teachers should be given freedom to modify curricula according to the needs of the children and the available resources; 2) lessons should be more dynamic involving active participation by the students; 3) promotions should be based on a series of tests; 4) personality traits should be assessed as objectively as possible; 5) preprimary education should be made an integral part of the educational system; 6) teacher education should be geared to the changing socio-economic needs; 7) an extensive programme of inservice education for teachers should be organized; 8) moral instruction should be provided in schools; 9) an autonomous Education Finance corporation should be set up at the national level which may be responsible for administering the Triple Benefit Scheme for Teachers and the accumulated Provident Fund, and providing funds for school buildings and equipment; 10) there should be decentralization of power in the total educational system.

494 **SUBBA RAO D:** Education and planned change. Educational India 1971, 38(4), 113-17. 3 ref.

The following six factors involved in the process of educational change have been explained with suitable examples: 1) planned change requires constant attention as to its direction; 2) change involves learning and special effort may be required to make it institutionalized; 3) individuals differ in their rate of acceptance of change and willingness to try innovations; they may be classified into six-categories - innovators, early adopters, early majority, late majority laggards, diehards; 4) change occurs in a step-wise fashion and each step causes and requires readjustment in methods, relationships and goals; 5) the process of change tends to follow the problem-solving method, including the steps of problem identification and definition, problem diagnosis, posing of alternative solutions, evaluation and acceptance or rejection; 6) the process of turning new ideas into corrupted forms becomes a barrier to meaningful consideration of change proposals; value systems, status symbols and other corrupted forms have to be taken note of.

495 **SYED MAHMOOD ALI:** Baffling task of educational reconstruction in India. University News 1971, 9(11), 12-15.

The functions and aims of intellectual education, passive and theoretical education, moral education, vocational education, self-education, social education, and national education have been pointed out. The following priority goals have been recommended for educational reconstruction in India: 1) overhauling school and college curriculum to reflect the realities of a changing world; 2) developing an accurate knowledge and understanding of the policies and destinies of the nation; 3) training and retraining students at all levels in all aspects of world affairs; 4) training young people for community life; 5) drawing a good proportion of the best ability in the country into teaching profession; 6) creating new and important knowledge through the use of up-to-date research techniques; 7) developing a suitable value orientation.

496 TIKKU K: Administrative elite and education in India. Mainstream 1971, 10(6), 16-18, 42.

The bureaucracy in India has been inadequate as an agent of change and innovation because it has inherited many characteristics from the past. The transformation of this old system into new developmental administration requires an appropriate system of education, training, socialising, directing of the youth and administrative cadres. The spread of adequate education is also an effective means by which class and status consciousness - rigid and hierarchical social divisions - can be eroded and the power of authority counter-balanced.

EDUCATIONAL PSYCHOLOGY

497 AGRAWAL K G: Predicting evaluation score from familiarity score. Journal of Psychological Researches 1971, 15(3), 127-30. 4 ref.

The sample included 400 students of X class (age-range 13-17 years). They were divided into 10 groups of 40 students each. Each group rated 24 ethical concepts and 31 concepts relating to life, health, sickness, and death against 13 semantic differential scales. Familiarity, evaluation and cultural instability scores were obtained. Cultural instability or stereotypy scores were subtracted from familiarity scores and the resultant F-S scores for most of the concepts were found to be highly correlated with evaluation scores.

498 AGYAJIT SINGH: Socio-emotional climate of a classroom. Quest in Education 1971, 8(4), 241-7. 7 ref.

The role of schools in building the emotional and social climate in the classroom for promoting effective learning among pupils has been discussed. The major factors influencing the desired climate are: 1) teachers' personality, methods of leadership and their relations with pupils; 2) social interaction and interpersonal relations among pupils; 3) interaction among teachers and between teachers and administrators; 4) physical facilities of the classroom. Teachers should guide pupils in acquiring skills for harmonious social relations and the classrooms should provide an environment for pupils to satisfy their social needs through various social activities.

499 AMRIT KAUR: Cognitive effects of disconfirmed expectancies. Journal of Psychological Researches 1971, 15(3), 119-26. 13 ref.

Ninety two high school students (45 males + 47 females) enrolled in English and Driver Education classes summer school in California, U.S.A. participated in the study. The level of probability of the expected event was manipulated by inducing half of the sample to believe that all of them would have to take a test (which measures ability to think in terms of a new language - an artificial language, in this case), whereas the rest of them were told that only half of them would have to take it. All subjects underwent a preparation for five minutes, at the end of which they were told that due to unforeseen circumstances they would not be able to take the test. One half of the subjects from both high probability and low probability conditions were then asked to answer a questionnaire measuring the dependent variables - value attributed to the study, willingness to persuade others to take part in the study, anxiety about and presumed difficulty of the test, expected achievement on the test and the perceived interest value and usefulness of the preparation, whereas the rest responded to the same questionnaire after a delay of twenty minutes in which they pursued their routine classwork.
The results obtained are: 1) subjects in high probability condition experienced the study as less valuable and rewarding; there was a difference between males and females, the former experiencing the study as less valuable, hence showing more regret; 2) male subjects in low probability, no-delay and high probability, 20 minute delay were less willing to recommend participation in the study to others than the ones in the other two groups, whereas females reacted in the opposite direction; 3) subjects in low probability condition showed more anxiety and anticipated the test to be more difficult; males in no-delay, low probability condition showed more anxiety and anticipated difficulty than all males in no-delay condition and all females in high probability condition; 4) females anticipated lower achievement than males; 5) subjects in no-delay, high probability and 20 minute delay, low probability perceived the preparatory action to be more difficult than the ones in the two other groups; 6) females in no-delay, high probability and 20 minute delay, low probability perceived the preparatory action to be less interesting and less useful than those females in the other two groups, whereas males in no-delay, low probability perceived the preparation as more interesting and useful than those males in the other two conditions.

500 CHANANA P S: Sex antagonism in the classroom. Educational India 1971, 38(6), 190, 199, 200.

The opinion of children, both boys and girls of classes 3rd to 9th standard studying in a Government Model School of Patiala were elicited regarding the seating of boys beside girls. The subjects belonged to middle and upper middle classes. The findings are: 1) children who are opposed to sitting together of boys and girls state that it is irksome to remain silent throughout the day and they feel shy to talk to opposite sex; 2) the majority opines against the existing arrangement; 3) the majority of those favouring the present arrangement view that discipline and silence would be maintained in the class by such an arrangement and there would be disturbance if girls were allowed to sit with girls and boys with boys; 4) the sex antagonism among children is sharp even though children belong to middle class and upper middle class. It has been suggested that sex prejudices should be viewed sympathetically and separate rows for boys and girls be arranged in the classroom.

501 DEO P, SHARMA S: Relationship of self-concept and anxiety. Journal of Psychological Researches 1971, 13(2), 63-6. 14 ref.

To establish the relationship, a self-concept inventory standardised by Sharma on the pattern of Bills et al., and an anxiety scale standardised by Sharma were administered to 700 eleventh class adolescents (362 males and 338 females) of 13 urban higher secondary schools of 4 different States of Northern India. Self-concept, self-ideal discrepancy and anxiety scores were computed for the sample. The findings are: 1) all the three scores represent normally distributed traits; 2) self-concept (positive-negative dimensions) and anxiety are negatively related, an increase in self-concept being accompanied by decrease in anxiety; 3) as self-ideal discrepancy increases, anxiety also increases; 4) both self-concept (positive-negative dimension) and self-ideal discrepancies are linearly related to anxiety.

502 DESAI H G: Birth order, sex and intelligence - a case for family planning. Journal of Education and Psychology 1971, 29(2), 148-57. 19 ref.

The aim of the study was to determine the relationships of birth order and sex to intelligence. Three hundred and thirty eight children, 228 boys and 160 girls representing all socio-economic levels, studying in 8th and 9th grades of five different schools in Bhavnagar constituted the sample. These children belonged to first six birth orders. Information regarding sex and birth orders were elicited and Gujarati version of intelligence tests - Desai-Bhatt Group Intelligence Test (Verbal) and Bhavsar Non-verbal Group Tests of Intelligence were administered to the sample.

The data were statistically analysed. The results are: 1) boys belonging to the 3rd birth order have significantly higher verbal IQ than those belonging to 1st and 2nd birth orders; 2) girls belonging to 1st and 2nd birth orders have significantly higher IQ (verbal) than 3rd born; 3) the 1st, 2nd, 4th and 5th born girls are superior to 1st, 2nd, 4th and 5th born boys in verbal intelligence; 4) the verbal intelligence is independent of birth orders if sex differences are not taken into account; 5) though 3rd born boys have the highest mean non-verbal IQ, they are significantly higher than the 2nd born only. They do not necessarily excel boys of other birth orders; 6) birth orders are not related to non-verbal intelligence so far as girls are concerned; 7) non-verbal intelligence is independent of birth orders if sex differences are not considered. It has been concluded that a three-child family, daughter-daughter-son combination is the ideal situation.

503 **DESHPANDE M V**: Sex differences on Raven's Matrices Test (coloured form). Journal of Psychological Researches 1971, 15(3), 101-3. 8 ref.

The test was administered to 940 boys and 594 girls of class IV of primary schools of Nagpur proper. The sample consisted of students having Marathi, Hindi, Gujarati, English and Sindhi as their mother tongue. The age-range of the group was 8-11 years. The norms for boys, girls and the composite norm for the grade have been presented in a table. The mean scores showed that in two cases out of four, boys had higher mean score. Variability was relatively greater for boys. However, statistically the difference between the means and S.Ds. was not significant at any age level.

504 **DUTT N K**: Study of the escapist attitudes in post-graduate students. Journal of Psychological Researches 1971, 15(2), 60-2. 9 ref.

Two escapist attitudes considered for the study were 1) belief in other worldliness and 2) belief in self-surrender. The study was aimed at 1) standardising the attitude scale, 2) examining the distribution of attitude in the sample of the study, and 3) finding out the differences in attitudes on the bases of sex and the areas of study such as arts and science. Likert's technique of summated ratings was adopted and a scale of 60 items covering the areas of other worldliness and self surrender were collected and edited. This tryout scale was administered to 90 post-graduates of Punjab University. Items were analysed by i) arranging the forms in descending order, ii) picking up the uppermost 30 and the lowermost 30 to form extreme groups, iii) using the means of these extremes to form an Index of discrimination (ID) and iv) selecting the uppermost 25 items with higher ID. The final form consisting of 25 statements was administered to 200 post-graduates of Punjab University and the forms were scored again. The scale was finally tested for reliability and validity. Some of the findings are: 1) girls have significantly stronger escapist attitudes than boys; 2) no differences are found in the attitudes due to training in arts and science disciplines; and 3) there are no significant differences between the standard deviations of the sub groups i.e. arts boys, arts girls, science boys and science girls indicating that all the groups are equally variable.

505 GAUTAM R P: Relationship between personal and social variables and sociometric status in classroom situation. Journal of Psychological Researches 1971, 15(3), 91-5. 14 ref.

The relationship between such personal and social patterns as impulsiveness, ego strength, academic achievement, intelligence, age and socio-economic status, and popularity in classroom situation was studied. The sample for the study selected from 10th class pupils by socio-metric technique and teachers' rating scale, consisted of 20 pupils who were over-chosen (leaders) and 12 pupils who were under-chosen (isolates). Their scholastic achievement was compared only on the basis of the results in essay type examination in English and mathematics in the 9th class. Bhatia's Battery of Performance Tests of Intelligence was used for measuring intelligence. The impulse, Ego and Super Ego Test of Dombrose and Slobin was used to compare the personality composites. The findings are: 1) the two groups differed significantly on all the variables except chronological age and socio-economic status (measured by Kuppuswamy's socio-economic status scale, urban); 2) leaders had significantly higher academic achievement than isolates; 3) leaders were significantly superior to isolates in their intellectual functions; 4) isolates were more impulsive; consistency in their high impulsive score was a further revelation of their excessive sensitiveness and over aggressiveness; 5) leaders secured higher ego score showing their superiority in exercising good judgement, adjusting emotional reactions, and making realistic and outer world; 6) isolates had high super ego score which may mean they had more coersive super ego, suffered from guilt sense and the feelings of worthlessness, and were under constant pressure of mental anxiety and agony.

506 GUPTA V K: Relation of neuroticism, extraversion, intelligence and persistence to educational attainment. Journal of Psychological Researches 1971, 15(2), 86, 87. 9 ref.

Fifty pre-university class boys (age range 15-18), selected randomly from various colleges in Patiala constituted the sample.

Information regarding age, health and mental conditions was obtained from college medical records. Neuroticism and extraversion scores were calculated by using Maudsley Personality Inventory of Eysenck and intelligence by Bhatia Battery of Performance Tests of Intelligence. Persistence was measured by rating the oral responses of each subject to a set of simple arithmetical problems against stipulated time. All the tests were administered individually. The marks obtained in the 10th class examination constituted the index of educational attainment. Correlations of educational attainment with variables viz. extraversion, neuroticism, intelligence level and persistence scores were computed and tabulated. Findings are: 1) all the coefficients of correlations are significant except the coefficient of correlation between educational attainment and extraversion scores; 2) the neutroticism score is negatively correlated while the intelligence scores and persistence scores are positively correlated with educational attainment scores; 3) with regard to intercorrelations between the factors extraversion, neuroticism, intelligence and persistence scores, only the coefficient of correlations between extraversion and persistence scores are significant while others are not.

507 **KAKKAR S B: Behaviour problems of children as viewed by fathers. Quest in Education 1971, 8(4), 226-30. 11 ref.**

The views of 120 fathers regarding the behaviour problems of their children were obtained by administering a list of 47 types of behaviour framed with a list compiled by Wickman as a guide. A total of 156 students studying 7th and 8th grades of 6 Government schools of Patiala was involved in the study. The results were correlated with the study of a) Wickman, b) Porter and c) Thomas Mangen and David Shafer, who studied the rating of behaviour of children by various groups viz. i) modern teachers and hygienists, ii) high school and college seniors and iii) 8th grade school children respectively. The findings are: 1) fathers tend to acquire the attitudes of children and teachers towards a few behavioural types; 2) fathers' attitudes on the seriousness of certain types of behaviour are similar to those of college students; 3) fathers' views on certain behavioural types are different from school students and from mental hygienists.

508 **LIDHOO M, LAHORI N:** Family, class and parental education as the determinants of Zeigarnik effect. Journal of Psychological Researches 1971, 15(3), 89,30. 11 ref.

The study was conducted to test the hypothesis that subjects coming from middle class homes have a superior RU, compared to the working class subjects. Twenty subjects of 5th grade were randomly selected from Burn Ball, (a secondary school) to represent middle class and an equal number from DAV higher secondary school, to represent working class. Both the schools are in Srinagar. The average income of the middle class was Rs.775 P.M. and that of the working class Rs.450 P.M. The educational qualifications and job positions of the parents of the middle class subjects were generally good, whereas they were average in the case of the working class. Twenty Zeigarnik tasks like bead counting, threadwinding, drawing a flower, etc., were selected. Average completion time for each task was calculated on ten subjects five of whom were drawn from each class, these subjects not being included in the final experiment. The experiment was conducted separately on the two groups. Half of the tasks were interrupted when the subjects were most engrossed in them, while the other half of the tasks were allowed to be completed. Immediately after the experiment, the subjects were asked (one by one) to narrate in their own words the tasks they had been working. The tasks which the subjects narrated were noted against the name of each one. The mean of (RU-RC) of the middle class subjects was 5.0 and that of the working class subjects 3.7 for the test of significance of the differences between the means of (RU-RC) of the two groups, "t" test was applied. The value of CR was 5.52, significant at 1% level. Thus, the hypothesis was proved correct.

509 MALATESHA R N: Relationship between motivation and attitude of modernization. Journal of Psychological Researches 1971, 15(3), 111-13. 8 ref.

A sample of 132 boys (age-range 15-18 years) studying in IX and X standards of a high school was administered a TAT instrument consisting of five projective pictures for measuring achievement motive. This was followed by the administration of a Thurstone type scale in the form of a battery with six tests to determine the index of attitude of modernization. The subjects were divided into three groups, viz., high achievers, average achievers, and low achievers on the basis of their score in projective stories. Coefficient of correlation was found out by computing the Pearson's product moment correlation between the achievement and attitude of modernization. There was no significant relationship between the attitude of modernization and motivation.

510 MATHEW M, KARUNAKARAN NAMBIAR M: Study of leaders and isolates among college students. Journal of Psychological Researches 1971, 15(2), 82-5. 14 ref.

Sixty eight leaders and 51 isolates identified by sociometric technique from 5 Arts Colleges of Trivandrum constituted the sample. Of the 68 leaders selected by sociometry, 66 were mentioned by the teachers. The subjects were interviewed and in addition they were asked to write a short autobiography. Chi-square was found out to judge the significance of relationship between leadership and factors like economic background, order of birth, corporal punishments by parents, etc. Leaders emerge from higher socio-economic strata of society. The eldest child is more likely to become politically oriented student leader. Such leaders are also likely to be physically taller and healthier than isolates. They emerge from families which emphasise greater freedom of behaviour for children. Leaders as a group are confident and optimistic about their future. They feel less guilty regarding their heterosexual interests and experiences. Unlike isolates, they have more positive friendly attitude towards parents, teachers and siblings. The leaders preferred by the college students are more politically inclined in their value orientation. While isolates prefer and admire religious leaders, the college leaders admire mainly political figures.

511 MATHEW M, SUDHA V: Behaviour problems in children: how teachers perceive them. Quest in Education 1971, 8(4), 222-5. 6 ref.

The purpose of the investigation was 1) to know the perception of high school teachers of Kerala regarding seriousness of commonly occurring behaviour problems in children; and 2) to find out whether sex and experience are differentiating factors with regard to the perception of the relative seriousness of behaviour problems in children. Responses of 166 high school teachers in Trivandrum District were obtained by administering a data sheet containing 39 behaviour problems where the subject marked 15 problems in order of seriousness. The findings are that 1) the teachers considered inattention, carelessness in work, laziness, disobedience and shyness as serious problems; 2) suspiciousness, thumb-sucking etc., were considered as least serious; 3) the more experienced teachers did not differ significantly from less experienced with regard to their perception of different behaviour problems; 4) men and women teachers differed in their attitude towards behaviour problems.

512 MOHAN V, SURI U: Comparative study of the effect of personality on performance of the normal and mentally retarded children. Indian Journal of Mental Retardation 1972, 5(1), 18-24. 14 ref.

The study was made to find out the effect of personality on maze learning. A group of 64 children (age-range 11-15 years) was selected out of 250 school children in Chandigarh on the basis of their intelligence and personality scores on the Standard Progressive Matrices (Raven, 1960), the Seguin Form Board Test, and the Junior Personality Inventory (Mohan et al 1968). The subjects were experimented upon individually. Each subject was supposed to trace the finger maze while blindfolded, with his or her index finger. Two indices of performance recorded were: a) the total number of trials taken to learn to trace the maze correctly; and b) the total errors committed. The findings are: 1) the retarded took more trials to trace the maze and in the process made many more mistakes; 2) personality had no effect on maze learning either by way of trials or by errors; 3) sex differences were also not significant; however, the female subjects seemed to be better.

513 RAINA M K: Verbal and non-verbal creative thinking ability, a study in sex differences. Journal of Education and Psychology 1971, 29(3), 175-80. 28 ref.

The subjects of this study (30 male and 25 female teachers) were drawn from students of summer-cum-correspondence course conducted by the Regional College of Education, Ajmer. Both verbal and non-verbal tests of creative thinking ability developed by Torrance (1966) were used. The protocols were scored for fluency, flexibility, originality and elaboration. In addition, a total creativity score was obtained by summing up all these scores. A separate scoring system was developed for the originality dimension as proposed by Torrance (1965) and Yamamoto (1966). The findings of this exploratory study suggest that there are no significant sex differences in creative thinking ability in teachers as far as verbal creativity is concerned. Further, it suggests that males score significantly higher on the originality dimension of the non-verbal form of creativity instrument, and except this dimension of creativity, there are no significant sex differences.

514 RAINA T N: Authoritarianism of teacher educators and student teachers - a comparison. Journal of Psychological Researches 1971, 15(3), 96-100. 8 ref.

The California F Scale, a measure of anti-democratic (authoritarian) potential was administered to a sample of 100 teacher-educators and 145 student-teachers, in Rajasthan. The instrument showed a high degree of reliability. The sample was found to be more authoritarian as compared to almost similar samples in U.S. The teacher-educators were less authoritarian than the student-teachers. The hierarchy of values evident from the different F Scale items for the two groups have been presented and their significance discussed.

515 SHARMA K L, SRIVASTAVA P K: Study of "dominance-deference" need patterns in Indian personality. Journal of Psychological Researches 1971, 15(3), 108-10. 6 ref.

Two hundred and ninety three unselected students (165 males of age group 20+ and 128 females of age group 19+) of postgraduate and undergraduate courses of the Rajasthan university were the subjects of this study. A questionnaire (Murray, 1938) with 10 questions pertaining to dominance and 10 to deference was administered to the students. Intra and intergroup differences in dominance-deference patterns were found significant (P .01) n Def. was more predominant than n Dom. There were no significant sex differences in n Dom and n Def, and only two items out of 20 were responded differently by the two sexes.

516 SHARMA S: Psychological basis of pupil teacher relationship. Quest in Education 1971, 8(4), 231-4.

The role of teachers in building a close rapport with pupils has been emphasised. The psychological factors such as teachers disregard of social needs of pupils, authoritarian discipline in classrooms, use of sarcastic comments about pupils, employment of ineffective teaching techniques, favouritism towards a few students etc. adversely affect the teacher-pupil relationship. Suggestions to teachers for maintaining a positive relationship with pupils include: 1) developing qualities such as patience, self-control etc.; 2) avoiding sarcastic and personal comments; 3) enforcing only permissive discipline in the classroom; 4) behaving impartially towards pupils; 5) participating in co-curricular activities; 6) keeping a record of social needs of pupils and offering help accordingly; 7) making self-appraisal studies for self-improvement; 8) creating an atmosphere of freedom and mutual respect in classrooms; and 9) maintaining an emotionally stable attitude when dealing with pupils.

517 SINHA R: Direction of aggression and reaction-type in relation to personality adjustment. Journal of Psychological Researches 1971, 15(2), 71, 72.

Subjects of the present study were 10 highly adjusted and 10 relatively poorly adjusted female high school students selected on the basis of their scores on Mittal's Adjustment Inventory. The adjustment scores of these two samples differed significantly. The age of the Ss ranged between 13 to 20 years. The Rosenzweig's Picture-Frustration study (children's form) was administered to the two extreme groups. The P-F protocols were scored both for type of reaction and direction of aggression. The results indicate that in case of frustrations, Ss who are low on adjustment tend to be more extrapunitive than those who score high on adjustment dimension. However, it is difficult to assist whether lesser extrapunitiveness in high adjustment group is in itself a factor contributing to better adjustment or a result of their superior coping process with frustration-inducing interpersonal situations. With regard to the type of reaction, high adjustment group tends to give more obstacle-dominance responses but the mean differences between the two extreme groups in case of ego-defensive and need-persistence responses are insignificant.

518 VASHISHT R S: Institutional therapeutic clinic. Naya Shikshak (Teacher Today) 1971, 14(1), 79-85.

Children come to school with already developed wrong attitudes and behaviours. A scheme of work therapy is envisaged to make changes in the pupils' environment so that they will be encouraged to take on new behaviour patterns. The objectives of work therapy are: 1) to remove the tendency of discrimination; 2) to inculcate friendly and social feelings; 3) to develop tolerance; 4) to develop nationalism and desire to serve all. The work therapy has to be entrusted to teachers who love children and have patience. The teacher can detect pupils' prejudices by observing their behaviour during election of class representatives and various school committees and in the common dining hall. The behaviour of parents of the children is also observed during parent-teacher meetings. Various programmes are suggested in the work therapy scheme to achieve the following: 1) development of a tendency to serve; 2) instilling in students appreciative attitude to other religions; 3) development of perspective and integrity. The project, it is suggested, can be evaluated by asking students to maintain a diary to note down their views about the project, by asking the opinion of parents and other teachers, and by employing three scales for testing prejudices, stereotypes and social distances of students.

519 VERMA I B: Values, attitude and achievement of student teachers. Journal of Education and Psychology 1971, 29(3), 210-16. 7 ref.

It was decided to study the relationship of values and the student teachers' achievement in the university examination. One hundred and ten B.Ed. trainees selected from eight training colleges of Rajasthan were administered Allport, Vernon and Lindzey's scale of values, and Minnesota Teacher Attitude Inventory (MTAI). The subjects' achievement was measured by their marks obtained at the university examination. This yielded six scores on the four theory papers, the total theory marks and practice teaching. The coefficient of correlation between values and attitudes on the one hand and achievement on the other were calculated. The following are the findings: 1) theoretical values are significantly and positively related to the students' achievement in paper III - methods of teaching, and significantly negatively related to achievement in practice of teaching; the theoretical values are insignificantly and negatively related to achievement in paper I - principles of education and school organization; 2) economic values are significantly and positively correlated with achievement in paper I, paper III and theory total; 3) there is negative but significant correlation between religious values and achievement in practice teaching; 4) attitude towards children and school work has not influenced the achievement. The following recommendations have been given: 1) before the trainee comes to the training college, he should be disciplined in particular branches of knowledge as influencing contemporary human life and aspirations; values desirable for teaching profession should be fostered; 2) a sound selection procedure should be adopted; 3) a well-organized and efficient placement and follow-up service should be set up.

EDUCATIONAL SOCIOLOGY

520 KAKKAR S K: Social acceptance as related to social tenure. Journal of Psychological Researches 1971, 15(3), 116-18. 1 ref.

The study was made to find out if there was any difference in the extent to which seniors (those who had been in the school since their early elementary classes) and juniors (those who joined the school at VIII to IX class) were a) accepted or rejected, b) singled out as being members of a dissident group hankering for power, and c) singled out as isolates. A sociometric questionnaire to this effect was administered to 223 students (102 seniors and 121 juniors) studying in classes IX through XI. The results obtained are: 1) those students (seniors) who had attended the school together for a longer period of time were accepted to a greater degree than were those (juniors) who had been together in the school for a shorter duration; besides, rejection came mostly from the senior group rather than from both the groups impartially; 2) members of the senior group were pointed out as being members of power-hungry sub-group more frequently than were the juniors; 3) juniors were singled out as isolates far more frequently than were seniors.

521 **SHUKLA N N**: Influence of sociological factors on the education of children in Greater Bombay. Journal of the Gujarat Research Society 1971, 33(3/131), 160-70.

A three-fold questionnaire was administered to 600 students of class X, and their parents and teachers. The observations include - 1) most of the children came from large families and parents desired to equip their children with a degree certificate irrespective of the abilities of their children; 2) non-family members (e.g. domestic,servants, guests) acquainted children with varying personalities and situations, and fulfilled the needs of children that were not met by parents; 3) school life was the most powerful medium of social development, but expension in education created a number of problems; the school trips and card playing ranked first in the scale of preferences, and only few participated in dramatics, boy scouts, girl guides, etc.; 4) most of the teachers were highly experienced, had no job satisfaction, and took up private tuitions; over 33% of the pupils were not satisfied with the teacher-pupil relationship; 5) with regard to radio programmes, educational programmes ranked the lowest in the scale of preference; 6) most of the children saw films once a week. Vocational guidance to children, associating them closely with their parents' professions, and introducing the Hungarian example - obligatory teaching of film appreciation in school curriculum have been suggested.

522 **SINGH R M P, KRISHNA K P**: Prejudice of college students towards caste. Indian Journal of Psychology 1971, 46(3), 219-25. 9 ref.

One hundred and twenty unselected undergraduate students of both sexes (Kayastha - 26, Kurmi - 20, Brahmin - 13, Bhumihar - 23, Yadav - 20, Rajput - 18) were administered 1) a two-point scale to measure caste prejudice; 2) a questionnaire to measure inter-caste distance; 3) Hindi version of Maslow S-I inventory to measure the level of insecurity in subjects. The following are the findings of the study: 1) the insecure persons are more caste minded; 2) Kayasthas dislike Kurmis most and they feel themselves nearer to Brahmins; Kurmis dislike Yadavas but they also like Brahmins; Brahmins dislike Yadavas and in preference order, they have least dislike for Rajputs; Bhumiharis dislike Kurmis most; Yadavas feel themselves distant to Bhumihars and near to kayasthas; Rajputs keep themselves at a distance from Kurmis; thus students differed significantly in their perception of caste distance.

523 VAISHNAV S S: Macro study of a rural high school of Gujarat. Education and Psychology Review 1971, 11(2-3), 27-31.

The study was conducted among 208 tenth and matric class boys and girls (age, 18-20) of a rural coeducational high school in Gujarat. A questionnaire was administered to the students to collect information regarding place of birth, caste, educational aptitude and background, students in the family, family education, economic condition, etc. The following conclusions are drawn:
1) certain rural traditions act against the progress of women;
2) great cultural differences, exist among different status groups; 3) forty one per cent of students belong to the group which has wider urban contacts; these students had their primary education in urban areas; this wider contact facilitates modernisation; 4) the second group consists of 30% of students who come from families owning farm land in the village;
5) the rest of the students form the third group and they belong to families of small businessmen, artisans, labourers, etc.;
6) the first group possesses broader outlook and it influences the third group in its modernization; the second group acts as a link between the other two groups.

EXAMINATION AND EVALUATION

524 AGGARWAL L N: Developing the ecology of examinations for better education. Education Quarterly 1971, 23(2), 11-15, 18.

The gap that exists between the role that examinations should play in the educational process and that it actually plays has been pointed out. Evaluative and diagnostic tests are informal and personalised. These are classroom tests. The formal examinations which are meant for promotions should be depersonalised and they should be more accurate, valid and reliable. Further examinations have been stressing only on the cognitive function of education. There is need for devising examinations to assess growth in the other two important domains - psychomotor and affective. Each test item in the question paper will have to be thoroughly analysed and decisions arrived at as to how far these items were capable of assessing what they have to assess. Constant efforts are needed to bring in novelty in test items and testing situations. Another significant area of research in examinations is the refinement of the scale of evaluation. Teachers, paper-setters and examiners have to be trained in regard to the proper functions of examinations. Training colleges, Boards and other research agencies need to bring out useful literature in this connection.

525 CHAITANYA: Should the examination system go? Assam Tribune 7 November 1971, p. 4, cols. 3-6. 1500 words.

The drawbacks of the present examination system have been pointed out. The oft-repeated suggestion for a system of continuous grading cannot succeed in the present conditions unless some drastic changes are made in the education system. The method of joint evaluation as tried in USA is worth considering. The idea here is to encourage the student and the teacher jointly to evaluate the students' work and the teacher's contribution to that work, with the evaluation being written up and filed with other such dossiers that the student builds during his stay at the university. It is important that a student knows his skills and weaknesses.

526 DAVE R H: Reforming written examinations - some measures. Education Quarterly 1971, 23(2), 1-6.

The drawbacks of traditional written examinations have been stated as follows: 1) the questions set in papers are vague, admit many possible answers and demand memorisation; 2) the practice of providing overall options in question papers have adverse effect on curriculum instruction, study habits of pupils etc.; 3) the content coverage in the question paper being poor, the chance factor is increased and reliability of the test reduced; 4) the scoring procedures are defective. Three mutually related measures suggested for improving measurement of written examinations are: a) abolishing overall options with or without providing for internal options in the question paper, b) increasing content coverage by i) spreading questions on all significant topics and sub-topics prescribed for the study, ii) reducing the proportion of long answer type or essay type questions and increasing the proportion of short answer type questions; and iii) providing objective type questions wherever possible; however, introduction of a procedure of developing a design and blue print for every question paper, indicating topics and sub-topics to be sampled, number of questions to be set on each and weightage in terms of marks to be allotted to each has been desired; and c) increasing the proportion of short answer questions for evaluating mental abilities of pupils; the questions should thus be worded carefully so as to elicit a definite and precise answer.

527 DESAI D M: Examination reform in Indian varsities, an action programme. Journal of Education and Psychology 1971, 29(3), 181-92.

Several educational and other causes operating as obstacles to examination reform have been discussed. The action programme suggested for speedy reform consists in the first step of establishing a central examination department in the UGC. It is suggested that concurrently, the existing university examination divisions in the administrative wings should be developed into departments of examinations headed by competent university professors. Another measure would be to decentralise some of the examination work shouldered by universities (especially the work of internal evaluation) to individual departments and colleges. The other concommitant reforms such as the introduction of inter-disciplinary courses, the semester system, the cent per cent internal assessment system, the partial internal assessment system-cum-external examiners, etc. should be introduced in such a way that intended examination reform takes healthy roots in the majority of universities in the next 10 years.

528 GOEL S C: Some educational problems of examination reform. Education Quarterly 1971, 23(2), 19-21.

Examinations form an integral part of teaching and learning processes. A sound examination system should satisfy two important conditions viz., i) the test items should be directly related to the objectives of education, thus ensuring the validity of the test, and ii) the test should be a reliable, accurate and appropriate instrument of measurement. To satisfy the above conditions, objectives should be defined for all subjects at all levels of education. In an examination system, memorisation should not be over-emphasised and questions of the problem type should find a place. A balanced question paper should 1) reflect the contents of knowledge in an extensive as well as intensive manner; 2) help discriminate the good and the bad students; and 3) test the objectives; and 4) define the direction and scope of the answers desired. A tentative outline of answers prepared by the paper-setter could be circulated among all the examiners. Combination of essay and objective type questions should be provided in question papers. Continuous evaluation of pupils through home examinations, sessional tests, quizzes, practicals, field and project work etc. could be made and such marks indicated separately with the name of the institution attended by the pupil in the degree certificate containing university results. Credit system has been favoured for achieving the objectives outlined by the Education Commission (1964-66) for improving teaching and evaluation methods and for introducing flexibility in the selection of courses.

529 KAPOOR R: Examinations - what reforms are needed? Education Quarterly 1971, 23(2), 22-5, 30.

The shortcomings of the single examination system have been discussed and the following course-and credit scheme including a written examination has been suggested as a measure of reforming the existing examination system: 1) the course contents should have well defined aims; 2) the pupils should be encouraged by teachers to submit original work which is independent of the prescribed texts and for which no readymade answers are available; 3) for this purpose, teachers should develop subjects, give assignments to students, and acquaint them with methods of dealing with the work; 3) a term-paper should be prepared by pupils in a period of two months and submitted to teachers for evaluation; the teachers should evaluate and grade such papers with the help of an external teacher; 4) at the end of the session, the students should be given a comprehensive objective-type examination in the prescribed texts; though term papers should be made obligatory, the students should be permitted to take the examination at the end of the session or any time in the course of three years; these examinations should be organised twice a year for the benefit of the pupils.

530 KUMAR P N: Examination - a phobia for teachers. Education Quarterly 1971, 23(2), 40.

The experiment undertaken by Punjab government of permitting pupils of middle standard to answer questions at examinations with the help of textbooks has been commended. However, the following measures are suggested for the improvement of examinations: 1) cheap help books supplying readymade answers should be banned and textbooks be made extensive and illustrative; limitation be placed on the number of books from which students are allowed to seek help in the examinations; the questions framed should test the intelligence of the pupils; the safety of invigilators should be ensured; 2) the number of candidates appearing for the various university examinations be restricted by raising the pass percentage of marks or the minimum requirement of percentage of marks needed for admission or by permitting only those who qualify the entrance examination to enter colleges; 3) guidance and counselling services be provided for the students to select the subject of their choice and inclinations; 4) oral examinations be conducted in place of written examinations; however, students desiring written examinations be permitted to take written tests; 5) internal assessment be modified to limit the chances of favouritism and partiality.

531 MAHESHWARI S B: Study of resistance to change in the examination pattern. Journal of Education and Psychology 1971, 29(2), 137-47.

The reactions to change in examination pattern were obtained from students/teachers/educational administrators of three selected colleges of education which had introduced changes in examination pattern, through three interview schedules. Analysis of the reactions reveal that: 1) newness of the change, and lack of grasp of the new system create resistance; 2) continuous assessment is a task which is difficult to reconcile with the teacher's another function of helping and guiding the student; therefore continuous assessment is opposed; 3) educated elite resist change; 4) since the change in the examination system involves changes in the methods of teaching, the teachers habituated to a single method of teaching offer resistance; 5) the change in the examination pattern would be opposed unless the total system of the organization is redesigned and changed; 6) innovations in the examination system are perceived as threats to the existing practices; 7) semester system, considered as an expensive system, cannot find its way into the Indian education system and so a change in that direction would be ineffective; and 8) any change which does not look impartial to the students and which gives to the teacher an authority without ensuring its impartial use would be unacceptable to most.

532 MATHUR V B L: Oral examination. Naya Shikshak (Teacher Today) 1971, 14(1), 50-4.

It is suggested that oral examination should find place in the examination system, since development of oral expression is also an aim of education. The aims of training for oral expression should be to develop ability 1) to speak fluently and effectively; 2) to recall appropriate words; 3) to organize the content matter systematically and effectively; 4) to modulate the voice; 5) to make suitable gestures. It is pointed out that oral examination should be conducted internally as external examinations will be costly. The oral examination should be independent of the subjects of study. The steps to be taken to increase the reliability in oral examination are: 1) fixing objectives of oral examination and defining them clearly; 2) giving adequate time notice for preparation and training of students; 3) clearly determining the aspects to be examined; 4) fixing weightage to the various objectives; 5) giving detailed instruction and training to examiners; 6) creating a coordinating agency to maintain uniform standard; 7) the examiners should have a prepared list of questions from which they should put questions to the students.

533 MEHTA T S: Population education in schools - content and method of teaching. Education Quarterly 1971, 23(2), 45-50.

A long term multifaceted population education programme in schools has been favoured for developing among young generation an attitude of small family norm. The core of population education programme should consist of the elements-determinants, demography and consequences as proposed by the regional workshops on population and family planning organised by Unesco at Bangkok (1970). Besides, two more elements-human reproduction, and awareness of policies and programmes of the country should also be included. The programme should be integrated with school subjects and not be treated as a separate subject. Problem solving method which actively involves the pupil in the process of learning should be employed. Suggested activities for the teachers include: 1) studying population maps; 2) collecting data on population growth; 3) collecting information about health/civic services; 4) reading relevant material; 5) discussing problems on overcrowdedness, health and hygiene; 6) preparing graphs and charts on rise of population; 7) viewing films, TV and conducting discussions; 8) undertaking surveys on rise in prices, on family composition; 9) preparing bulletin boards informing about balanced diet etc. At the secondary stage, rational discussions should be conducted to help pupils identify information, learn the techniques of critical analysis and make judgements. Orientation and preparation of the teachers has also been emphasised.

534 MISRA R G: Ethics of examination. Rajasthan Board Journal of Education 1971, 7(2), 1-7.

It has been opined that achievement of students coming from different home and social conditions cannot be compared as it is dependent on various personal and social factors. Another aspect criticized is the issuing of certificates by the Boards of Secondary Education on the basis of a single examination. The human errors in the different phases of the examination procedure like paper-setting, administration of question papers, scoring of scripts, and interpretation of scripts, that lower the reliability and validity of educational measurement have been discussed. The academic, administrative, and social causes contributing to mass copying in examinations have also been indicated.

535 **NATARAJAN** V: Continuous assessment of technician student performance. Education Quarterly 1971, 23(2), 41-4.

The technical students could be continuously assessed by short-tests written assignments, laboratory work, project work carried on in the laboratory/industry/an engineering firm. The mechanics of continuous assessment are: 1) deciding the objectives and their relative importance by subject teachers and assigning weights to indicate their importance; 2) deciding the total number of assessments to be made during the academic year; and 3) tabulating the results as desired. Phased introduction of the continuous assessment programme offering maximum flexibility for effective progress has been suggested. The scheme of continuous assignment requires: 1) involvement of technical teachers in designing assignments, tests etc.; 2) effective tutorial system to assess students' performance continuously; 3) tutors and moderators from administration and industry to assess the work of students; and 4) maintenance of progress sheets.

536 New assessment plan to replace old examination system at IIT, Bombay. University News 1971, 9(10), 15-17.

Two types of courses are envisaged-the lecture course and the laboratory course. Either of the two may be supported by tutorial instruction. Each course is taught by an instructor who may be assisted by course associates. The course instructor or the instructor-in-charge (if there is more than one instructor) is responsible for assessment and evaluation and then sending the grades obtained by the students to the academic office within 96 hours of the completion of the final assessment in the course. The various modes of assessment used for rating a student's performance in a lecture course include the quiz, the class test (open or closed book), the home assignment, the viva, and the semester-end examination. The weightage on the semester-end examination is 50 percent of the total weightage. The assessment in a laboratory course depends on turn-to-turn supervision, regular viva voce examination, performance in group discussion, laboratory report writing, and the end-semester test. The major weightage (80%) is assigned to in-semester assessment while the weightage on the end-semester test is only 20% of the total.

537 PATIL S V: Internal evaluation in the agricultural universities. Education Quarterly 1971, 23(2), 33-5.

Discusses the shortcomings and advantages of the system as follows: 1) the numerous examinations and tests conducted for assessing the pupils would not provide the pupils enough time for reference study or for understanding the subject; however, students regular in their study habits and deeply involved in the process of learning would find the tests stimulating and a routine matter; 2) grading may become unfair as the teacher offering the course sets the paper, corrects the answer sheets and there may be discrepancies; a fair means of evaluation could be ensured by i) regular rating of the teachers, ii) providing incentives for creating confidence among teachers, iii) distributing regulated teaching load on the teaching staff, and iv) providing a cell for institutional research for every college of the university; 3) maintaining the standards would be different in agricultural universities having more than one agricultural college located at different places in the State. As different teachers have to be employed for various colleges, variations in grading and in standards of teaching would be imminent; this difficulty would be solved by providing one head of the department in charge of teaching the subject in all constituent colleges; 4) mal-practices in the examination hall could be avoided by proper seating arrangement in the examination hall and by appointing suitable number of invigilators.

538 SEMINAR ON THE REFORM OF PUBLIC EXAMINATIONS: Recommendations. Teachers' Journal 1971, 50(11), 369-71.

Recommendations are: 1) decentralizing the function of holding examinations, and effecting some organizational changes; there should be no promotional examination at the end of class IV; a number of autonomous zones should be set up by the West Bengal Board of Secondary Education for the school final and higher secondary examinations; preuniversity examination should be left to individual colleges; B.A., B.Sc., B.Com. Pass courses should be given to the Council of Undergraduate studies', honours and postgraduate examinations should be incharge of the vice-chancellor and syndicate, helped by the office of the controller of examinations; however, colleges should not be allowed to issue the first degree pass certificates; 2) besides one head examiner for a subject, posting an additional headexaminer, a number of assistant head examiners with ten or fifteen examiners under each one of them for every decentralized zone; 3) holding meetings between these examiners for avoiding discrepancy in assessment; 4) allotting not more than two hundred scripts for each examiner; 5) discontinuing the practice of holding Part I and Part II examinations of the first degree course in watertight compartments, and instead, keeping one total first degree examination; 6) abolishing the package system of examination, and awarding certificates only for those subjects in which a student passes; 7) introducing a five point or ten point scale for marking; 8) preparation of a paper setting design by the examining agency, and a scoring key by the paper setter; 9) sending the paper setting design to various teachers, and inviting questions from them to set up a pool of questions for the papersetters to select from; 10) appointing only the respective subject teachers as papersetters and moderators; 11) organizing a reorientation course for them to be acquainted with the new outlook; 12) setting up a research unit in every university and State Board of Secondary Education for further improvement.

539 SINGH R P: Public examinations - an exercise in futility. Education Quarterly 1971, 23(2), 16-18.

In-built resistance to change has been responsible for inaction towards reform of examinations, at the secondary level. The purpose of examination is briefly discussed and the following measures are suggested for the improvement of examinations at the secondary stage: 1) external examinations should be abolished and subject teachers should examine children thoroughly; same textbooks be prescribed for all pupils studying in particular classes throughout the country; 2) switchover to regional and national accreditation of institutions would ensure the maintenance of minimum standards of teaching; 3) the abolition of boards of examinations would affect a few beneficiaries of the institution; however these persons could be accommodated on the accrediting committee; 4) teachers' training colleges should be reformed and trainees provided with orientation programmes in the conduct of home examinations; mass scale in-service training also should be organised; 5) instead of granting grades/divisions in the examination, the examination itself should be conducted at various levels for the same class.

EXTRA-CURRICULAR ACTIVITIES

540 BADAMI H D: Survey of use of leisure time among the pre-university college students. Journal of Education and Psychology 1971, 29(3), 202-9. 11 ref.

A questionnaire was administered to 458 students (327 male, 131 female) of arts, science and commerce colleges in the city of Ahmedabad. The choice in leisure time activities and the extent of participation in each have been studied. It was observed that a majority of the students do not plan for the use of leisure time, do not use leisure time to their satisfaction and feel that existing facilities are not adequate for the effective use of leisure time. Main leisure time activities are extra-reading, tours, picnics, and movie-going. Further, sex differences have been observed in the choice of activities.

FORMS OF EDUCATION

541 BAKHSHISH SINGH: Correspondence courses - review of experience and a look at prospects. Education Quarterly 1971, 23(1), 28-33.

The progress made by the Directorate of Correspondence Courses of the Punjabi University has been reviewed, and the advantages of correspondence courses indicated. The different aspects of correspondence education - lesson writing, correction of students' response sheets, radio talks, library facilities, personal contact programmes, have been discussed, and the difficulties faced by correspondence students stated. Some of the suggestions offered are: 1) proper breaking up of lessons, careful selection of lesson writers, and thorough scrutiny of the prepared lessons by the Directorate staff; 2) giving special guidance to brilliant as well as weak students; 3) making radio talks a daily feature and setting up special cells in the institutes for correspondence courses for broadcasting radio talks and arranging group discussions;

4) provision of liberal grants by the UGC and the Ministry of Education for setting up mobile library units as also correspondence course library cells in different universities and colleges; 5) extending the UGC scheme of special grants for textbook libraries to the correspondence course institutes, and setting up book banks and multiple textbook libraries for correspondence students; 6) careful selection of the teachers as well as the administrative staff, and provision of all facilities and arrangements for their efficient working. Extension of the scope of correspondence courses to cover postgraduate courses in humanities and social sciences, degree courses in science subjects as also some job-oriented and hobby courses has been suggested for consideration.

542 EKAMBARAM C R: Case for open education. Education Quarterly 1971, 23(1), 21-4.

The need for self-instruction through open education both at university and school levels, and the role of radio and television in this context have been discussed. The mass participation in elections and development processes, the increasing complexity of new developments in science, technology, society and politics, the high price of formal education have been pointed out as the factors necessitating a revolutionary change in this respect. The existing broadcasts are mainly supplementary to the curricula of school and university instruction. For the open university of the type that was discussed at a seminar in Delhi in December 1970, a careful and elaborate planning would be necessary. The materials for study - textbooks, correspondence study guides, viewing and listening guides, visual aids, broadcasts and all other messages, would have to be arranged and designed for easy handling. Some means of self-testing and feedback should also be included. The open school system which is a more revolutionary concept would put the child through five processes - a) learning through listening, b) getting assignments through listening, c) memorising and reproducing, d) learning, reading and writing with the assistance of an instructor, and e) enriching the reading and writing through listening. All the processes could be gone through by the use of sound broadcasting, with an instructor to guide. Training and guidance in listening has been underlined as an important prerequisite for open education.

543 GOEL S C: After-hour instruction - will it erode quality? Education Quarterly 1971, 23(1), 18-20.

Since the correspondence courses have been initiated only eight or ten years ago, it is too early to assess their impact on standards. However, the available information and the experience gained so far indicate that the standards of correspondence course students compare favourably with those of regular students. The factors which helped this are: 1) prescription of the same admission procedures, contents of courses, and standard of examinations to the correspondence and regular streams; 2) provision for contact programmes and library facilities; 3) fairly satisfactory preparation of reading material and response sheets; 4) better motivated students seeking admission. However, a serious limitation of the correspondence method is the absence of constant intellectual rapport between students and teachers. It can be remedied to a certain extent by the use of radio, television and other audio-visual aids. The technique of correspondence education can be used for experimentation with new ideas which may be difficult to be tried in the traditional system.

544 GURUGE A W P: After-hour instruction - will it erode quality? Education Quarterly 1971, 23(1), 11-14.

After-hour instruction implies instruction after the work-a-day hours of the students as also after the usual working hours of the educational institutions. The concept of quality in education varies according to one's point of view. A student views it as the efficiency of instruction to enable him to achieve his chosen objective of vertical or social mobility. A teacher judges quality on the basis of students' performance in examinations, tutorials, etc. An institution associates quality with such things as honours distinctions, medals and scholarships earned by its students. To the nation as a whole quality is signified by the capacity of the educational system to attain such national objectives as economic and social development. The high motivation of students seeking after-hour instruction can be advantageously used for promoting educational quality even in the face of certain difficulties. The cause of quality as conceived by individual students, and by the nation can be realized only through after-hour instruction. It is again after-hour instruction that enables the labour force to retain its continued employability and productivity, and develops an urge for further education. It improves educational quality from the national point of view in another way also by making full use of the available educational facilities. Asserting that there would be no erosion of quality, the following have been suggested: 1) complete change of attitudes on the parts of teachers and educational authorities; 2) new skills and technologies for more efficient and effective instruction; 3) a thorough re-examination of what is to be taught and a reform of the present system of evaluation.

545 JAYARAMAN T R: Mechanics of open education in India. Education Quarterly 1971, 23(1), 1-5.

With regard to the suggestion of establishing an open university to relieve the pressure of numbers on colleges, the feasibility of broadcasting full-time educational programmes has been discussed. On an elaborate analysis of the various factors involved, it has been concluded that instruction to students listening to radio broadcasts for 4/5 hours a day is likely to be costlier than the other alternative of providing radio broadcasts as supplemental to a correspondence course. A two-phased programme has been suggested. In the first stage correspondence courses may be started in all States using the local language as medium of instruction and supplemented by radopradio. Since the necessary network is already available it will be less costlier to strengthen it than to start an independent educational radio network. In the second stage an independent television network for the entire country may be developed aimed mainly at catering for educational purposes.

546 MISHRA M L: New education in a changing society - the case of promoting correspondence education. Education Quarterly 1971, 23(1), 34-7.

The difficulties faced by the university of Rajasthan during the promotional period of the scheme of correspondence education have been listed as follows: 1) the scepticism of both teachers and students in the initial stages; 2) the educational cost remained a positive handicap for a number of aspirants; 3) administrative constraints affected the academic efficiency ; 4) faculty members refused to opt for the vigorous and partly administrative job of correspondence education; 5) good course writers and reviewers were rare and had their own exacting terms about time limits; 6) printing presses with skeleton and untrained staff were unable to print quality lessons; 7) the work could not progress quickly as the controlling university authorities had no idea about the new scheme. However, some of these problems can be solved by - a) greater autonomy to the institutes offering correspondence courses, b) coordination between the institutes for common production of instructional material, c) offering a separate cadre and incentives for the personnel, d) waiver of the self-financing objective. A detailed report has been given of the working of the Institute of Correspondence Studies of the University of Rajasthan, which started functioning from 1st July 1968.

547 PADMANABHAN C B: Viability of open university for India. Education Quarterly 1971, 23(1), 25-7.

The main features of the open university in U.K. have been described. An analysis has been made of the possibility of its introduction in India. The total cost of setting up such a university may be high, but the essential components of an open university-radio, television and correspondence courses, being already in existence, the additional expenditure needed may not be very high, and the scales of economy that exist can be realised.

In the context of the rising demand for higher education, the following benefits have been envisaged from setting up an open university: 1) it will relieve the pressure of demand for higher education and thus help the pursuit of a policy of selective demand; 2) it can be used to implement other socio-economic reforms and also make the public at large participate in a more meaningful way in the over all planning for socio-economic development of the country; 3) it can be used to ensure a better management of the existing resources on the part of the workers employed in various industries. A careful preparation and planning of courses has been suggested to ensure the quality of education. Utilizing the open university facilities for implementing the programmes like adult literacy, family planning, and land reforms has also been suggested.

548 SRINIVASA IYENGAR K R: After-hour instruction: will it erode quality? Education Quarterly 1971, 23(1), 9-11.

The need for trained personnel in the context of knowledge explosion has been discussed. The open university enables all those who care for education to enter the mainstream of knowledge. In view of the not so high educational standards and student indiscipline in the universities, it has been considered that the open university student is not likely to lose anything for not being a full-time student. Since knowledge becomes obsolescent due to rapid scientific and technological advancement the open university would anyhow be necessary to enable the educated to remain educated, to keep abreast of latest knowledge and to look forward for new trends. It has been cautioned that the open university should be tuned to the current Indian realities. No erosion of standards has been envisaged if the services of expert teachers are mobilised to compensate for the absence of personal contacts.

549 SUBRAMANYAM G V: After-hour instruction - will it erode quality? Education Quarterly 1971, 23(1), 14-18.

The need for open university, and the different categories of students expected to benefit from it have been pointed out. The disadvantages and advantages of open instruction have been discussed. The impersonal nature of instruction, absence of radio facilities, lack of direct contacts with other students and professors as also any scope for participation in cultural activities or games are some of the drawbacks militating against efficiency. The impersonal nature of instruction can be rectified to a certain extent through televised lessons and summer schools or vacation classes. Moreover, the prepared postal lessons are a special boon to the open university students. It has been opined that after-hour instruction through postal, radio, and television lessons is sure to promote efficiency. With the advantages of a mature audience, reduction in per capita expenses, fuller utilization of mass media, museums and libraries, it is bound to be more efficacious than the routine instruction in the campus colleges.

550 WASI M: Open university - UK and India. Education Quarterly 1971, 23(1), 6-8.

The open university in UK was established for providing an alternative to all those denied admissions in the regular institutions of higher education. It provides particularly for the part-time earner-student who is productive and desires to be more productive. No formal qualifications are necessary for registration and hence the foundation courses are also provided for. This kind of educational experiment can be successful in India, because the country is far flung, many have no access to higher education, and the national productivity is low. British experience should be profitably utilized and care taken to ensure that the scheme is properly executed. Apart from the mechanics implied in the use of mass media of instruction and the effective administration of correspondence courses, India would have to decide the language. The efficiency of the system should be judged on the basis of the cost per graduate. If the rate of drop-out is low, the experiment is profitable. Even otherwise, the scheme is not to be abandoned, but the reasons should be investigated. Before embarking on the scheme, it would be advisable to check and re-check the physical infra-structure and the academic quality, and also resolve regional impediments.

HEALTH CARE

551 BEULAH RAJU: School health programme in selected middle schools of Delhi, a survey. Delhi, National Council of Educational Research and Training, 1970. 132p.

The objectives of the study are: 1) to orient administrators and personnel involved in various aspects of the total school health programme; 2) to assess the present status of the total school health programme in 44 middle schools under the Delhi Municipal Corporation; 3) to develop an educational programme and provide facilities to strengthen the existing programme; 4) to explore common ailments and deviations of children from normal health. The study covered 21,022 children. The study is presented in three parts: part 1, is devoted to the assessment of the school programme and spells out the findings of the survey; an evaluation and recommendations on the existing status of the school health programme are presented in part 2, while guidelines and suggestions for teachers and administrators for a sound school health programme have been given in part 3.

552 AMRIK SINGH: Higher education in the seventies. Quest 1971, No. 72, 71-81.

The sixties saw the submission of the Kothari Commission (1964-66) report. The recommendations were not implemented because the Commission presupposed a state of economy and social purposefulness which did not exist. The most pressing problem of higher education in the seventies will be that of the pressure of numbers. The unrestricted expansion of higher education has been at the cost of primary and secondary education. At the same time, the postgraduate education has not expanded commensurably. It is pointed out that the expansion of undergraduate education cannot be moderated unless it is realistically related to manpower planning. While at the planning level, the responsibility for what has happened rests upon the Centre, the State Governments are equally responsible in this that they ignored important recommendations of several Committees and Commissions. Another problem is that of declining standards for which the poor quality of teachers entering universities and colleges is responsible more than anything else. Yet another feature of Indian educational scene is the lack of efforts on the part of university teachers to organize themselves professionally to intercede in the process of higher education for its betterment. In any scheme of reconstruction of Indian education, there is need for 1) giving priority to the demands of economic growth in planning for education, and 2) State governments getting actively involved in improving education without waiting for the Centre to take steps.

553 Choice of studies [Editorial]. Hindu 20 October 1971, p. 8, col. 2. 600 words.

It has been commended that many universities are remodelling their educational systems with a view to offering their students, a wide variety of studies and freedom to specialize. This frr freedom is a great advantage of the semester system. A typical three year degree course would be split up into six semesters of eighteen weeks each. While the first two semesters might be taken up by basic courses in the chosen subject, there would be a choice of courses in the subsequent two years. External assessment would be used only for final semester test which carries 70% of the marks. Courses in which students fail could be repeated or replaced by alternatives. A major advantage is that it will do away with heavy reliance on textbooks. The semester system would permit revision of the subject in the light of new discoveries. The teacher's role should be of a guide, and a postgraduate student has to decide himself the field of his specialization. Some smaller colleges may not be able to introduce this new flexible system immediately. However, the more important requirement at this juncture is the realization on the part of students and parents of the need for discarding the traditional system in favour of a system that will provide the student with latest knowledge and a better understanding of his chosen subject.

554 JOSHI K L: Higher education: college or university oriented. Hitavada 3 October 1971, P.A., cols. 1-3. P.B., cols. 2-4. 520 words.

There is rapid increase in the number of colleges. However, hardly 10% of the existing 3000 colleges have the requisite facilities to impart quality education. It is pointed out that the affiliating system of universities is largely responsible for fall in standards. It is suggested that the university should be made the central concept of higher education. The following suggestions are made: 1) the government colleges at the headquarters of a university should be transferred to the university; 2) with regard to private colleges the government should pay full grant towards the staff salary, and the administrative expenses, etc. should be met from fee income. A portion of the fee income should be kept for college development; 3) no college at any place besides the headquarters of a university should have postgraduate classes; 4) if two or three colleges in a place have postgraduate classes, their work should be coordinated with the postgraduate work of the university; 5) there should be no distinction in pay of teachers of degree colleges and of postgraduate colleges; 6) the principal of a college should be considered as the first among equals of staff members; 7) the principal should have teaching work and in his administrative work he should be helped by an officer of assistant registrar's rank.

555 JOSHI K L: Junior college - its place in the educational structure. University News 1971, 9(12), 10-14.

The American system of junior colleges has been described. Introduction of junior colleges in the Indian educational structure has been suggested in view of the need for a large number of schools at the middle level i.e. between the high school stage and the college stage, and the problem of educated unemployment on the one hand and the scarcity of skilled personnel in some sectors on the other. The haphazard manner in which the educational system has been subjected to changes with no uniformity has been criticized. Though some States like

Kerala and Andhra Pradesh have already introduced junior colleges they do not realize the importance of providing facilities for transferred students, providing terminal courses of different durations according to the vocational requirements, and providing continuation education for adults. The attempts by some institutions like teacher training institutions for primary school teachers, polytechnics industrial trade schools, etc. are also isolated and not comprehensive. A deeper thinking into this problem by the Central Advisory Board of Education, the Inter-university Board of India and Ceylon and the University Grants Commission as well as the Education Councils in the States has been suggested.

556 KAPUR J N: Post-graduate teaching in affiliated colleges. University News 1971, 9(12), 5, 6.

Some of the suggestions offered for strengthening the post-graduate colleges and raising their standards are:
1) sanctioning professors posts in the grade of Rs.1100-1600 at least for the larger postgraduate colleges and filling these posts on the basis of open competition; 2) organizing a planned in-service programme for the training of teachers; 3) promoting professional and scholarly activities among teachers; 4) providing research scholarships to teachers; 5) strengthening libraries and laboratories on a cooperative basis; 6) fixing a minimum percentage of marks for admission to postgraduate courses; 7) exploring the possibility of increasing postgraduate education by a year; 8) establishing close association between universities and post-graduate colleges; 9) utilization of all its resources by an affiliating university for improving the postgraduate departments of its colleges, instead of running postgraduate courses of its own; 10) providing larger government funds for postgraduate education.

557 RAJ K N: Crisis of higher education in India. (Patel Memorial Lectures - 1970). Delhi, Publication Division, Ministry of Information and Broadcasting, 1971. 30p.

Analysing the nature and causes of the crisis in higher education, it is pointed out that the aimlessness of the secondary education (its non-vocational bias) and its heavily subsidized nature resulting in over-crowding of higher educational institutions which again are very heavily subsidized, have caused the fall of educational standards and accentuated the problem of unemployment of the educated. Standards also suffer because of the demand to introduce regional languages as media even at the postgraduate level. It is concluded that the existing system of subsidization of higher education cannot be justified on grounds of either equity or efficiency. The following suggestions are made, taking the resource constraints into view:

1) top priority should be accorded to primary education; 2) secondary education should be vocationalised tying it suitably with training in industrial establishments; 3) making a clear distinction between undergraduate and postgraduate education, attempt should be made to promote autonomous colleges and centres of advanced studies to enable maintenance of standards; the autonomous colleges should be given financial assistance for specific purposes; 4) universities should not grow beyond an optimum size; there should be separate decision-making and administrative set up for undergraduate and postgraduate levels; 5) colleges other than those which are autonomous should be wholly self-supporting over a period of time; the funds thus saved can be spent on generous scholarships for meritorious and other specified categories of students; limited assistance can also be lent to non-autonomous colleges for specific purposes and schemes; 6) there is nothing wrong in the practice of collecting capitation fees provided there is suitable legislative safeguard with regard to the use of such funds; 7) the university grants commission might also set up an Open University to supplement the facilities offered by colleges and universities.

558 MANI SUNDARAM P S: Examination reforms and academic freedom. Hindu 21 December 1971, p. 8, cols. 5-8. Sandwich courses for technical education. Hindu 22 December 1971, p. 8, cols. 4-8. 2880 words.

Academic freedom to individual colleges has been advocated so that they can develop their own academic standards and methods of assessment and evaluation, and also their own diversified courses in collaboration with the industries in their neighbourhood. Such industry-based courses can be developed not only at the postgraduate stage but also at the undergraduate stage. This would be beneficial to both students and industries in that the former become fully equipped to secure industrial employment immediately after graduation, and the latter need not spend any time or money on apprenticeship training of fresh graduates. Sandwich courses which include academic study and industrial training integrated together in such a way that the course forms a complete whole could well serve the purpose. Industrial research is another area which calls for a constant collaboration between faculty members of the technical institutions and industrial personnel. A new Madras University of Science and Technology established along the lines discussed would give the engineering colleges in the State the needed impetus to revolutionize technical education.

559 NAYUDU M V: Some proposals to attune university courses for better education. University News 1971, 9(10), 11, 12.

Some of the proposals are: 1) introducing semester system with flexibility in courses offered and regulations permitting switch-over to different combinations of courses as needed, initially at the postgraduate level and in the next one or two years at the graduate level; a tentative scheme for botany has been given; 2) conducting tests once every three weeks for the graduate courses, and once every six weeks for the postgraduate courses, followed by a final test, and returning the weekly test scripts to students indicating the mistakes alongside each answer; 3) assigning 4 to 6 students to each teacher for providing guidance in the selection of courses; 4) allotting university teachers not more than 6 hours of work per week irrespective of their status, and arranging for a regular supply of journals to them; 5) promoting a good inter-action between the teachers of the affiliated colleges and of the university; 6) organizing separate summer institutes for teachers by each university, tailored to its particular needs; 7) encouraging a healthy relationship between the administration and teachers, and a proper coordination between universities, the society and the government.

560 Priorities in higher education. Economic and Political Weekly 1971, 6(47), 2343-5.

It is pointed out that the following improvements can be and should be made in the university system: 1) reforming the examination system; 2) modernising the syllabi and reorganizing courses; 3) introducing inter-disciplinary courses; 4) gearing up the university administrative set-up so as to make them serve the genuine needs of teachers and students; 5) integrating work and study in the curricula.

561 RAMAKRISHNA RAO V: Problems of higher education in science and technology. Educational India 1971, 38(2), 47-50, 61; 38(3), 91-6; 38(4), 131-4, 143; 38(5), 155-8, 161.

The position of higher education in India has been assessed by examining the factors viz., i) the current attitude towards education that it must be functionally useful; ii) the growth in demand for higher education; and iii) the phenomenal growth of scientific knowledge and technical skills; iv) the difficulties on account of student unrest; and v) the problem of the language. The above problems have been analysed in the context of three ingradients viz. teachers, the students, and the syllabus and assessment and the following solutions are suggested: 1) the syllabus for the courses should be framed keeping in view the definite objectives and aims of the higher education; 2) according to the present syllabus, a science student should possess a knowledge of mathematics apart from the advanced knowledge in his own subjects which could be made possible by increasing the duration of the course by one more year, reducing the language studies like English and regional language at the graduate level, eliminating the obsolete portions in the course, reorienting the teaching with time-saving devices and reviewing the role of practicals in science education; 3) special courses could be organised by universities to update the knowledge of teachers; 4) the teachers should establish a rapport with students and evolve methods of teaching of useful nature; 5) candidates of calibre should be selected for teaching posts by adopting proper recruitment policies; 6) it is desirable to appoint persons holding doctorate degrees for postgraduate teaching; 7) a careful deliberation, systematic approach, objective thought and a planned implementation is essential for replacing the present mode of examination by integral assessment; 8) a systematic approach with a desire to help is necessary in considering the problems of students; 9) with regard to the language issue, a pragmatic approach is needed and long range interests have to be kept in view while finalising any policy towards the medium of instruction and other important considerations connected with education; in retaining English, importance should be ascribed to its utilitarian aspect rather than literature aspect; 10) the ideas regarding the organisation of research in the universities should be reoriented towards applied research geared to the present requirements of the country.

562 Should education be job-oriented? [Editorial]. Hindu 24 December 1971, p. 8, col 2. 470 words.

Referring to the suggestion made by the Tamil Nadu Governor at the State Conference of College Teachers that education should be job-oriented, it has been pointed out that there are limits to the tailoring of higher education to the careers that are open to talent. The main task of teachers should be to teach pupils to think and to learn so that pupils entering various professions could be trained quickly on the jobs. Thus, the standards of college education could be raised not only by modernising the syllabus and the examination system, but also by modifying the art of teaching, by training the pupils to cope with new knowledge in the changing society. However, the quality of all the courses mainly depend on the teacher-pupil ratio, adequacy of libraries and equipment and the capacity of the teachers.

563 WRAGG M: Recent developments in higher education in India. Journal of Education and Psychology 1971, 29(2), 79-89. 33 ref.

General problems in education common to all countries and to those peculiar to India have been discussed. The main problems facing Indian higher education are the legacy of the past with British University systems, pressure of numbers, language problem and student indiscipline. The various development schemes in Indian education sponsored by the National Council of Educational Research and Training have been enumerated. Some of the suggestions of the Kothari Commission are referred to in the context of the developments. The following observations have been made regarding Indian education: 1) the standards of both staff and students have yet to be raised appreciably; 2) although inexpensive audiovisual aid could be obtained and in spite of providing for courses on the use of audio-visual aids, the aids are not used in classroom teaching in some schools; 3) higher education lacks the sense of purpose and a clear philosophy; 4) opportunities should yet be provided for teachers and students for developing responsibility.

INSTRUCTIONAL MATERIAL AND AIDS

564 MOHAN RAO U S: Books on science and technology. Indian Publisher and Bookseller 1971, 21(10), 298-304.

The need for cutting the import of foreign books and developing self-sufficiency in the matter of scientific and technical literature has been stressed in the interest of Indian authorship and publishing, and in the larger interest of healthy growth of higher science and technical education in the country. Proper incentives to potential Indian writers, and collaboration between universities on the one hand and research bodies and industrial houses on the other would help improve textbook production. The private publishing industry in India cannot bring about the needed revolution without the assistance of government. There should be a strong agency to draw up a phased programme for the creation of scientific and technical literature for university level consumption in those subjects where there is a shortage or where there is an unduly heavy dependence on imported books, to pool all the requisite resources and information in one place, and to coordinate and conduct the complex operations at various levels and in various fields that the production, improvement and promotion of technical literature involves. Establishment of Science and Technology Literature Foundation of India has been suggested for this purpose.

565 NERI I: Radio and television for literacy. Indian Journal of Adult Education 1971, 32(11), 16-18.

The advantages of radio and television as observed by the author in Italy, Tunisia, Jamaica, Brazil and Colombia have been given as follows: 1) they make up for the lack of group leaders; 2) they speed up the learning process; 3) television, especially attracts even the most refractory illiterates; 4) televised courses, though broadcast with groups in mind, can also be watched individually; 5) radio and television ensure continuity and uniformity even in countries where the struggle against illiteracy is conducted by several public and private organizations; 6) they draw the attention of increasingly large sectors of public opinion to the literacy campaign. Studying the extent to which radio and television can contribute to the truly functional literacy has been underlined as one of the most relevant problems.

566 SAMAR D L: Kathputaliom̐ dwārā bhāṣā śikṣaṇ (= teaching of language through puppets). [Hindi]. Naya Shikshak (Teacher Today) 1971, 14(1), 68-74.

It is suggested that puppet drama can be used for developing the personality of the child and for teaching of languages. The children are first given liberty to select or compose a story for the puppet play. All the stories are discussed in the class and a suitable one is selected and improved upon by discussions among the students. After the story is selected and written in neat handwriting by each child, suitable puppet characters are constructed in the crafts class. When the puppets are ready, they are manipulated on stage to enact the story and the children are encouraged to suggest dialogues appropriate to the story situation. While producing the play and finalising the dialogues, the teacher takes utmost pain to suggest suitable words and vocabulary required for the class. When the play is ready, children put up a stage and a function is organised to present the puppet show. Since all children love these activities, the learning asslassociated with these activities becomes easy and effective.

LITERACY

567 BHARADWAJ N C: Change in literacy status. Yojana 1971, 15(23), 12, 32.

The changes that have taken place in the literacy status of individuals in India in the decade 1961-71 have been examined. The decade 1961-71 has shown an overall increase in literacy of 22.14%, that is, the literacy percentage rising from 24.3% in 1961 to 29.34% in 1971. However, more than 70% of the population is still illiterate. The States with a low literacy rate have made more efforts during the decade at increasing literacy than those which had a higher rate. Literacy among the male population has increased in all the States and the Union

Territories. The overall rate of progress of female literacy has lagged far behind the rate of progress of male literacy.

PHYSICAL EDUCATION

568 ALL INDIA SEMINAR FOR THE PRINCIPALS OF THE COLLEGES OF PHYSICAL EDUCATION, GWALIOR 1971: ∠ Recommendations ⁄. University News 1971, 9(11), 5, 6.

Some of the recommendations are: 1) urging the Central Government, State Boards of Education and universities to implement the reports of the Gwalior Workshop on Curriculum Development in Physical Education of January 1971, for all levels of education including professional preparation in physical education; 2) introducing semester system in training colleges of physical education; 3) making provision for securing master's degree in physical education by attending summer institutes; 4) introducing physical education as an optional subject in arts and science faculties of universities; 5) establishment of a Central Institute of Research and Physical Education by the Central Government; 6) provision of liberal facilities by the Central Government for improving libraries, construction of gymnasia etc.; 7) allocation of at least 60% of the total budgetary provision for physical education and sports in the Fifth Five Year Plan; 8) provision of UGC grants for opening extension departments for in-service training and community service; 9) awarding UGC fellowships and scholarships for research.

POLICY AND PLANNING

569 INSTITUTE OF APPLIED MANPOWER RESEARCH, NEW DELHI: Civil engineers in India, stock, demand and supply. New Delhi, the Institute, 1971. vii, 63p.

The main objectives of the study are: 1) to assess the total stock of civil engineers in the country at the end of the Third Plan; 2) to study the characteristics of civil engineering employment by educational, functional and industrial classifications as well as in the different employing sectors; 3) to examine the status of demand and supply; 4) to estimate demand for additional civil engineers during the Fourth and Fifth Plans especially for those with formal technical education; 5) to project the likely additional supply in the future Plans from existing educational programmes and institutions; 6) to bring out the implications of the demand for and availability of civil engineering manpower upto the end of the Fifth Plan period. The likely demand for civil engineers and the projected supply for the years 1972-74 and 1978-79 have been estimated and they relate to programmes and projects included in the Fourth Plan and assume an increase of 50% in the outlay for the Fifth Plan. Therefore, if the tempo of the Fourth Plan is stepped up and the targets achieved as scheduled, there is a likelihood of shortages developing among civil engineers, especially of diploma holders by 1973-74. In relation to a 50% increase in outlay in the Fifth Plan, this shortage might be accentuated in the Fifth Plan period, and the shortage of diploma holders in 1978-79 could be as much as 58000. This situation could also arise, if investment allocations in the remaining years of the Fourth Plan are adjusted in favour of developing the infrastructure in the rural sector and the consequent increase in construction activities.

570 INSTITUTE OF APPLIED MANPOWER RESEARCH, NEW DELHI: Demand and supply of metallurgists, 1969-1979. New Delhi, the Institute, 1971. vi, 27p.

The study attempts to assess the demand for, and the supply of metallurgists with a degree or a diploma in metallurgy during the Fourth and Fifth Plan periods. Projections of demand for metallurgists upto 1978-79 have been made separately for the different sectors of the economy using such personnel for a variety of activities. This is done with reference to production targets in each sector of industry indicated by the Planning Commission. Estimates of requirements of metallurgists are made by applying staffing norms linking employment pattern to production within varying size of establishments in the major industry groups. These demand projections are then compared with the likely outturn from approved educational programmes to reveal imbalances. Even if a liberal view is taken, as done in this paper, there is no likelihood of ensuring full employment for all the metallurgy graduates. The position would become more serious if a) production targets are lowered, or b) improved techniques of production are employed while graduates may not accept technician level jobs, it would be difficult for employers to take them directly instead of promotions from junior levels. Then there is the practice of employing trained B.Sc. graduates. The question of expanding training facilities for the production of diploma level technicians has to be related to the possibility and extent of utilizing metallurgy and trained B.Sc. graduates for technician positions.

571 INSTITUTE OF APPLIED MANPOWER RESEARCH, NEW DELHI: Fact book on manpower, Pt III - scientific and technical personnel. New Delhi, the Institute, 1971. xxii, 393p.

This publication is part III of the second edition of the 'Fact Book on Manpower'. It deals with the stock and distribution of various categories of scientific and technical personnel and their demographic, employment and migration characteristics. The data on these aspects have been drawn mostly from i) Council of Scientific and Industrial Research, ii) Registrar General of India, iii) Directorate General of Employment and Training, iv) Ministry of Education, and v) National Sample Survey. The data as contained in the present edition are distributed in 7 sections: 1) engineering and technological personnel; 2) scientific personnel; 3) health and medical personnel; 4) agricultural and allied personnel; 5) teaching personnel; 6) managers, administrators and social scientists; 7) scientific and technical personnel. Each section deals with: a) stock and coverage, b) geographical and demographic distributions, c) industrial distribution, d) occupational distribution, e) educational distribution, f) organizational and other distributions, g) distribution according to salary, h) unemployment, and i) migration (including international migration) in the order listed, depending upon the availability of data.

572 INSTITUTE OF APPLIED MANPOWER RESEARCH, NEW DELHI: Manpower Research 1969. New Delhi, the Institute, 1971. xiii, 123p.

This publication is the third in the annual series. It is a handbook of information on research projects in the field of manpower undertaken during the year 1969 by Central and State Government organizations, State financed and private institutions, universities and others. It lists the various research projects (classified by purpose and by agency conducting research) and provides brief information on the objective of each project dates of commencement and completion (or expected completion) and persons engaged on the project. The volume is divided into two parts: part 1 presents the research projects classified according to their purpose; in part 2, the research projects are listed by agency conducting the research. Manpower supply and/or demand, and manpower distribution and/or utilisation accounted for 17 and 24 per cent respectively of the total number of studies. The number of studies in agricultural manpower is small. Of the 162 studies included in this volume, 61% were conducted by Government departments, 24% by research institutions. Universities do not appear to show much interest in manpower research. They account for 6% only.

573 MATHUR H M: Educated unemployed. Modern Review 1971, 128(10), 257-61.

The existing educational system, illadvised career choices of students, outdated assumptions about the job world are the major factors responsible for the educated unemployment. Some of the remedial measures suggested are: 1) supporting only such educational programmes which may lead to rapid economic development and increased employment avenues; 2) prescribing a qualifying test for admission to courses in higher education; 3) redesigning the system of education in such a way that the needs of the subsistence and intermediate sectors are also served well; 4) reorienting curricula as to equip students for undertaking rural development work; and 5) associating manpower experts, sociologists, anthropologists, and economists in the task of curricular reform.

574 MATHUR P N: Demand and supply of doctors in India - 1951-56. Manpower Journal 1971, 7(1-2), 58-96.

The current and prospective demand-supply position of doctors has been discussed to determine the approximate magnitude of surplus or shortage. An analysis has been made of current availability and conditions of doctors by pooling together information available from different sources. Then, the supply projections of doctors has been worked out upto 1986 on the basis of the existing training facilities. An attempt is made to work out a few sets of demand projections for doctors on the basis of different assumptions and approaches: 1) doctor-population ratio norm; 2) relationship between stock of doctors and growth of national income; 3) relationship between demand for doctors and the stage of economic development; 4) component approach. By making a comparison of the demand estimates with the future supply, it is concluded that the present training facilities will not only meet the future requirements, but are likely to produce a surplus to the extent of 30% by 1986.

575 SEMINAR OF PRINCIPALS OF HIGHER SECONDARY SCHOOLS ON MODERN MANAGEMENT AND INSTITUTIONAL PLANNING, NEW DELHI, JUNE 1971. Institute News, Asian Institute of Educational Planning and Administration 1971, April-September, 8, 9.

The value of institutional planning and the importance of adapting and developing modern management techniques suited to school administration have been recognized, and recommendations offered on the following aspects: 1) training teacher educators, teacher students and educational administrators in educational planning and management; 2) assisting schools in the formulation of institutional plans and adoption of management techniques; 3) disseminating information about planning and management, and about successful projects in this regard.

576 SONDHI S R: Education and creation of employment. Economic Times 17 October 1971, p. 5, cols. 3-6. 750 words.

Education plays a vital role in planning in India. Promotion of education in the last three Five Year Plans and three annual Plans helped to effect social changes and accelerate economic growth. The expansion of elementary, secondary, girls, and university education has been presented in the form of tables. The Fourth Plan (1969-74) target of total enrolment in primary courses (6-11 years of age) would be 68.58 million, in middle classes (11-14 years of age) 18.10 million, in secondary classes 9.69 million and in the university stage 2.66 million. The problem of unemployment has been affecting the economy and it is a serious problem. The planners are seriously engaged in tackling this problem. Emphasis will be laid on self-employment programmes; vocational guidance and counselling will be stepped up by strengthening the university employment information and by bringing them into closer contact with employing agencies. The Madhya Pradesh Government recently announced a programme to give job opportunities to the unemployed. Such type of programmes are needed.

SCHOOL FORMS

577 Scholarships in public schools. Social Action 1971, 21(4), 351-5.

The Minister of Education recently announced in the Lok Sabha that 25% of the seats in public schools and all good residential schools were to be reserved for talented but economically underprivileged children. In general, the criticism directed at the public schools has been motivated by political, educational and social concerns. Apart from political considerations, which are related to changes in the composition of the political elites, opposition to the public schools is the outcome of the growing realisation that existing social inequalities in income, occupation and economic power are perpetuated by differential access to educational opportunities. The social and economic advantages which are attributed to the public schools are, to some extent linked with the medium of instruction. The Education Ministry's proposed scholarship programme is an expansion of the existing Government of India merit scholarship scheme. It would be desirable to undertake systematic research to identify the major psychological problems experienced by scholarship students in the process of social adjustment. These scholarships should not only be tenable in residential schools but also in day schools. Longitudinal studies should be initiated from the start of the programme to evaluate the effectiveness of these scholarships. The expansion of the merit scholarships may not bring about a radical transformation of the class-linked character of the public schools and other good private residential or day schools; but it will definitely be an important step towards the social integration of these institutions of elite education and also provide talented but underprivileged children with a new channel for social mobility and occupational advancement.

578 **SHETYE M:** Public schools for the poor. Bharat Jyoti 10 October 1971, p.I, cols. 1-8; p. VI, cols. 4-6. 4020 words.

A detailed description has been given of the two public schools for rural boys, at Nasik and Aurangabad, run by the Maharashtra government. They vastly differ from the traditional secondary schools both in respect of staffing pattern and nature of work. The daily schedule of training is truly dynamic and lasts, on an average, 16 hours a day. Based on modern scientific concept of neuro-muscular coordination the pupil here is motivated to study and learn through activity and not through memorization of text book lessons.

SOCIAL EDUCATION

579 **JAIN N P:** Rural social education in India. Indian Journal of Adult Education 1971, 32(11), 14, 15.

The concept of social education has been explained and the situation of rural social education analysed. Some of the suggestions offered are: 1) strengthening the local bodies like the Panchayat Raj bodies, at the same time removing any doubts about their establishment, and mobilising support from voluntary agencies in the districts; 2) a national body of adult education should involve itself in strengthening the Panchayat Raj bodies, mobilising small savings, educating for family planning, and many other such aspects; 3) formulating and implementing such projects and programmes which do not involve additional funds; 4) making optimum use of the existing infrastructure; 5) encouraging meaningful, purposive and problem-oriented action research in various institutions, centres as well as universities; 6) promoting pilot projects in various directions, taking care that the pilot stage is not very long and that the project is not discontinued for want of outside funds.

SPECIAL EDUCATION

580 Educating the blind with the sighted - the role of the National Association for the Blind, Bombay. Social Welfare 1971, 18(6), 16-18.

The movement of integrated education started in 1958 by the National Association for the Blind provides for the blind children to study at regular schools along with the sighted. The Association gives scholarships to the blind attending regular schools and colleges, provides resource teachers in such cases where there are blind children at the primary school level to act as confidence boosters to the blind children as well as to the regular teachers, to help the blind in reading braille, tactile illustrations etc., supplies braille and talking books, and also strives to convince the authorities concerned of the need for realizing the basic worth of the blind. Contrary to the earlier fears, there was no difficulty in teaching the blind along with the sighted, and they were found to be good in their studies. Apart from obviating the necessity for having separate blind schools, integrated education has also some social advantages like removing the false notions built against the handicapped and helping the normal children develop qualities like patience, unselfishness and sympathy for the handicapped.

581 **MAZUMDAR B N, PRABHU G G, NEKI J S: Special education** and environemnt. Indian Journal of Mental Retardation 1972, 5(1), 25-32.

The study was made to find out which of the three residential environments was comparatively more conducive for special training of the mildly retarded; 1) home environment, i.e. remaining as a day scholar; 2) institutional environment during the week and home environment during week-ends; 3) complete institutional environment i.e. staying in hostel. A sample of 60 children (mean age 11.5-12.1 years) from a special school at Delhi was taken up for comparison. They made three groups of 20 children each, representing the three different environments. The performance part of the Wechslers Intelligence Scale for children and the Vineland Social Maturity Scale were administered to the sample at the beginning and at the end of the academic session. The Mann-Whitney "U" test was applied to the rankings on the two measures at both the stages. The groups were found to be drawn from a common population. The local residents who had a predominantly institutional environment with intermittent home environment were found to be the most benefitted whereas the day scholar and the permanent residents came next in order. The possible reasons for the failure of the hypothesis that day scholars benefit most by special education provided in the school have been discussed.

582 **MOHAN J**: Mental retardation, giftedness and physical persistence. Indian Journal of Mental Retardation 1972, 5(1), 33-9. 21 ref.

A review has been made of two studies, one conducted by Mohan and Menon (1968) on normal and feeble minded children, and the other by Mohan and Manbena (1969) on gifted children and normal children. Both the studies attempted to find out the relationship between intelligence and persistence. The first experiment revealed persistence to be favourably related to retardation, though not significantly, while the second experiment clearly showed a significant relationship between giftedness and persistence. A possibility of U-shaped relationship between intelligence and persistence has been suggested.

583 **SINGH T B**: Removal of inequalities of opportunity in education. Indian Publisher and Bookseller 1971, 21(9), 274-9.

The following schemes have been in progress in the State sector to encourage scheduled caste and scheduled tribes to take to education - 1) award of prematric scholarships and stipends; 2) exemption from tuition and examination fees; 3) provision of educational equipment; 4) provision of mid-day meals; 5) setting up of Ashram schools; 6) grants for the construction of the school and hostel buildings. The schemes in the central sector: 1) award of postmatric scholarships; and 2) construction of girls' hostels; There are also other scholarship schemes for helping the poor and meritorious students as well as the talented rural children. The directive principle stipulating universal, free and compulsory primary education for all children upto 14 years is expected to be achieved by the year 1985.

STUDENT INDISCIPLINE. STRIKES.

584 **GHOSE M**: Some aspects of student unrest. Assam Tribune 31 October 1971, p. 4, cols. 3-8; p. 7, cols. 3, 4. 3050 words.

The social, economic, and political maladies responsible for student unrest have been analysed. The following remedial measures have been suggested: 1) instilling noble ideals into students' minds; 2) imparting moral instruction; 3) organising parent-teacher associations; 4) allowing student representation on various committees in the educational institutions; 5) entrusting each teacher with the responsibility of developing physical, mental, moral and spiritual wellbeing of a group of students; 6) improving the socio-economic conditions of teachers; 7) providing vocational training for the backward and dull students; 8) making strict admission rules as not to admit undeserving students; 9) solving students grievances sympathetically and promptly at the same time not acceding to unreasonable demands; 10) instituting in every State by proper legislation, a standing commission to deal with serious cases of student unrest.

585 MAHMUD HOSAIN: Student indiscipline in Indian colleges and universities. Mainstream 1971, 10(13), 19, 20.

The following suggestions are made to root out indiscipline: 1) instilling the habit of self-discipline; every university or college should have a discipline committee made up of student members; 2) maintaining high quality of teaching; pupils should spend their time in the quest of knowledge under the inspiring leadership of the teacher; students should be made to acquire the habit of self-study; 3) spending leisure time in sports, debates and cultural activities; students must also participate in socially useful constructive activities; 4) maintaining a close teacher-student contact; the head of the institution should freely mix with students.

586 SHARMA T R: Students' attitudes towards strikes. Journal of Education and Psychology 1971, 29(3), 217-23.

Sixty boys and 50 girls of M.Sc. and 60 boys and 35 girls of M.A. classes gave their opinions on a three point scale for 12 statements contained in a questionnaire. The data were analysed and the following conclusions drawn: Majority of students are against strikes and they feel sorry after having gone on strikes. They point out that strikes only pollute the academic climate of educational institutions. They feel that teachers have no hand in strikes, strikes are politically motivated, and are manoeuvred by some students with vested interests. There is rarely a vital or academic cause for strikes. The decision to go on strikes are emotional and not rational and student leaders do not take into confidence their fellow students at the time of taking a decision to go on strike. However, students feel that their voice is only heard through strikes and that they exhaust all constitutional procedures before proceeding on strikes.

TEACHER EDUCATION

587 ADARALEGBE A: Measuring success in teaching. Journal of Education and Psychology 1971, 29(2), 96-106.

In assessing good teaching, the teacher educators are largely concerned with the attributes of the teacher, ignoring what happens to the pupil. Thus, with a change in the focus and objectives of classroom teaching, the criteria for assessment of good teaching will change. A review of literature on the concepts of teaching has been made to justify the need for a change in focus. The second part of the article describes a current practice in a teacher education programme in the university of Ife, Nigeria, where new evaluative techniques for measuring teacher effectiveness are being tried out. Success in teaching is measured in terms of the teacher's ability to: a) attain results that are appropriate to the pupil; b) make a task analysis; c) select appropriate objectives and teaching procedures and conditions of instruction; and d) modify those conditions as necessary in a classroom situation.

588 _ First Asian Conference on teacher education - a new dimension ∠ Editorial_/. Journal of Education and Psychology 1971, 29(2), 75-8.

The conference was held from 10th June to 14th June 1971 at Bangalore. The theme was teacher education and social change. The resolutions of the conference have been enumerated as follows: 1) the programmes of school education and teacher education in each country should be modified to meet the socio-economic changes; 2) survey of teacher education situation in various countries be undertaken; 3) the journal of 'Teacher Education' should publish information about new developments in teacher education in Asian countries; 4) effective steps be taken by the governments and professional organizations to provide suitable emoluments to teachers and to improve their working conditions, for attracting persons of calibre to teaching profession; 5) an expert committee be appointed for making recommendations on reforms in teacher education institutes in regard to instructional methods and procedures; 6) greater stress be laid on functional and developmental research in teacher education; 7) steps be taken to organise Asian Conference once in two years on Teacher Education to coordinate the activities of national organisations and to promote the cause of teacher education in cooperation with institutional organisations.

589 KAUL ADALATI A N: Vitalizing teacher education. Educational India 1971, 38(4), 118-22.

An improved programme of teacher education as adopted by the Jiwaji University has been described. Methodology of various subjects was taken up only for a couple of months, and student-teachers were to prepare a number of lesson notes. The scheme of student teaching was implemented in two ways: 1) a fifteen days' workshop on student teaching with the following goals for attainment - a) demonstration lessons by teacher educators, b) analysis of school activities, c) planning of sample lessons; 2) student teaching in actual school situations - a) supervised teaching - out of a month's stay in cooperating schools, a fortnight was fixed for throughly supervised practice teaching, b) block teaching for a month, the distinguishing features of which were - classroom teaching of at least five periods of 35 minutes per day, participation in all the school activities, organising teacher-pupil cultural meets, and training in record-keeping and maintenance. The scheme also introduced new approaches in the evaluation of the entire practice programme - a) craft (constructive hobbies), mechanised farming, b) sessional work i.e. case study, action research, essay writing, observation of lessons, term test, preparation of teaching aids, c) practice of teaching. A number of measuring scales, inventories, etc. were also prepared, and a separate examination and evaluation unit set up. A panel of examiners including the principal of the college was appointed for external assessment. Attempts were being made to include a senior staff member also on the panel.

590 MARKER N S: Teacher preparation for population education. Journal of Education and Psychology 1971, 29(2), 127-32.

The need for preparing teachers for population education has been emphasised and suitable modifications in the syllabus of the B.Ed. course to incorporate population education have been suggested accordingly. The general objectives of the integrated course have been stated and a scheme for integrating population education in i) principles of education (philosophical); ii) principles of education (sociological); iii) organisation of education; iv) special methods and v) practice teaching has been drawn. The advantages of the course have been pointed out.

591 MUTHUSWAMY R: Training and development of technical teachers. Technical Teacher 1971, 5, 91-4.

The quality of technical education necessarily depends on the quality of the teaching staff involved. The qualities of teachers include sincerity of purpose, enthusiasm to arouse interest in pupils to develop their capacities, acquaintance of the entire literature including the latest developments on the subject they teach, capacity to organise the group and individuals to function effectively for achieving a common goal, and a knowledge of psychology of learning and of students. Thus, technical teachers should be trained in training institutions or in summer schools to achieve the above qualities. Effective teaching involves i) efficiency in learning; ii) a learning pattern offering an overall picture, building block stage, and reinforcement of knowledge assimilated; iii) planning and organisation of instructions from the curriculum; iv) planning of the curriculum; v) course planning; vi) planning the lessons using instruction techniques viz. objectiveness, preparation, presentation, discussion and summarising; vii) using instructional aids meant for helping teachers and pupils. Programmed instruction could be adopted for helping pupils check their progress periodically. Besides training programme the technical training institutions should provide extra guidance to fresh teachers and offer refresher courses to keep teachers aware of the latest developments in their specialised fields and in the fields of effective teaching and behavioural sciences. The teachers should cultivate a positive attitude towards their profession and evaluate their effectiveness by mechanical devices, rating forms and by eliciting the opinions of his colleagues and students.

592 **SHARMA S:** Preservice selection of teachers - a review of research. Journal of Education and Psychology 1971, 29(2), 158-64. 32 ref.

The need for developing a criterion for the colleges of education has been emphasised. Relevant research conducted in India and other countries with regard to i) the criteria used for assessing the teacher effectiveness and ii) the composite factors related to teaching success have been consolidated. With regard to admission procedures, due weightage to intellectual, social, emotional factors of teachers has been recommended. Some of the limitations of research in this field have been pointed out. The need for research in teacher effectiveness keeping in view educational goals, and teacher-pupil interaction research has been stressed.

593 **ZIAUDDIN ALAVI S M:** Role of university in teacher education. Educational India 1971, 38(4), 111-13.

In the preparation of better qualified teachers, it is pointed out, the universities can play a major role. Though some of the universities have introduced 'education' as a subject of study at the first degree and master's degree level, these courses are not popular because of their predominantly theoretical nature. Even in the B.Ed. courses emphasis is not laid on aspects such as construction of diagnostic and achievement tests, enrichment programmes, etc. The B.A. and M.A. courses in education should be reorganised, as suggested by the Education Commission (1964-66). With regard to improvement of practice teaching at the B.Ed. level, it is suggested that in place of fixed number of lessons, there should be block teaching for about two to three months under actual school conditions. The universities should take up primary and pre-primary teacher training also. The universities can remove the backlog of untrained teachers by conducting short training or correspondence courses. Further, the universities have the responsibility of conducting in-service training also.

594 BIR SINGH: Can salary increase make education better? Naya Shikshak (Teacher Today) 1971, 14(1), 61-7. 3 ref.

It is observed that salary increases to teachers will not automatically contribute to improvement in the quality of education. It is suggested that teachers should be paid according to merit so that increase in salary leads to improvement in the quality of teaching. Merit rating should give recognition to teachers' academic qualification, teaching experience, quality of teaching, research experience, contribution to educational journals, educational travels, service to community, etc. There is of course difference of opinion with regard to the adoption of merit rating of teachers. However, some of the suggestions put forth by those who found the scheme beneficial are: 1) all teachers should not start at the same salary and they should advance salary-wise depending upon their overall effectiveness and professional growth; 2) recognising that teachers differ in their effectiveness to a measurable degree, there should be different scales of pay; 3) definite standards should be set up to rate the teachers; credit may be given in salary steps for various achievements; 4) a minimum salary should be assured for every teacher; it should be sufficient to attract a high calibre person to the profession with additional pay available for especially good candidates.

595 JACOB G: Orientation of college teachers. University News 1971, 9(12), 19, 20.

The need for helping college teachers maintain constant touch with the developments in their respective fields has been stressed. A training course in teaching methods and psychology leading to a certificate for fresh recruits meant to teach pre-degree classes, an intensive course of one year's duration, preferably leading to a degree (M.Phil.) for post-graduate teachers in their respective subjects and the present type of summer schools with necessary modification in the course to be covered for teachers of degree classes have been suggested.

596 **DATTA S R:** Teaching of English poetry. Journal of English Language Teaching 1971, 6(4), 116-121.

The approach in poetry teaching should be synthetical, unlike the analytical approach in prose teaching, though the mood is more important in poetry than the meaning. The aims of teaching poetry have been pointed out. Mastery of language materials should confine only to vocabulary. Structures need not be stressed much as prose teaching takes care of it. A good working method of teaching poetry may be evolved if the spirit of the French technique of 'Lecture Explique,' which deals with all the aspects of a literary piece-content, form, style, vocabulary, imagery, music, the poet's genius, is applied to the revised Herbartian technique. The three steps of this method - introduction, presentation, and evaluation have been discussed.

H
597 **HOUGH A:** Project method. Technical Teacher 1971, 5, 45-50. 4 ref.

The main features of project method of teaching have been dealt with. The role of Polytechnics in providing technically trained people to industries has been discussed. The technician engineers should be able to work in teams or individually to achieve a given objective in an efficient manner. Project method allows the teacher to take advantage of the principles of learning. Thus, projects involving real engineering problems should be planned in polytechnics to provide learning experiences to pupils. The main factors involved in designing the project are the positive attitude and ability of the teacher to participate in the project as a member of the team, and grouping of students for the work by matching the learning styles of different individuals. A process for a project design involving pupils by guided practice, and developed keeping in view the abilities and skills to be instilled in pupils has been indicated.

598 **JANGIRA N K:** Understanding classroom instruction. Quest in Education 1971, 8(4), 199-221. 8 ref.

A conceptual framework implying a constant reaction and content communication between teachers and pupils for the analysis of classroom instruction has been presented. Based on this framework for instructional analysis, the classroom interaction category system describing the happenings in the classroom has been designed. The method of using the instrument and its limitations have been discussed. A few suggestions are given to teachers, teacher educators and supervisors for using the instrument effectively.

599 **KHANDELWAL R S**: Vidyārathi adhikoṣ kriyā-vidhi par ādhārit pariyojanā (= students bank - plan based on practical working). /Hindi/. Rajasthan Board Journal of Education 1971, 7(2), 46-51.

A project was undertaken to give practical shape to the teaching of commerce. By imparting practical skills in the maintenance of accounts, procedures of accounting, salesmanship techniques, inculcation of habits of thrift and other allied skills, through the operation of a boys' bank in the school, students were prepared to perform their role in their future careers. The main feature of the project was its self-sufficiency. During a period of four years, the bank's share holders rose from 83 to 171 and its net profit rose from Rs.4.55 to Rs.147.15.

600 **NAHAR S K**: Some aspects of teaching of mathematics. Mathematics Education 1971, 5(3), 68-70.

The need for creating interest in the subject among students has been underlined. It is essential that the teacher presents the subject in a manner as to help students grasp the subject intelligently, solve the problems independently, and remember a large number of formulae without strain. The habit of regular study should be cultivated. Self-confidence in learning and teaching plays an important role. The applied nature of the subject should be stressed in technical education; an applied mechanics laboratory has a key role in this.

601 **RAGHURAM SINGH M**: Trained polytechnic teachers' attitudes towards modern teaching techniques. Technical Teacher 1971, 5, 13-19.

Fifty teacher trainees were administered a questionnaire and a five point Likert type attitude scale at the end of their training course. The study led to the following conclusions: 1) the trainees show strong favourable attitude to modern technical teaching techniques; 2) they propose to adopt a few techniques straightaway on the resumption of teaching work in their polytechnics; 3) they are impressed with the need of student involvement in the teaching-learning process and the effect of teaching aids and classroom demonstrations on technical-learning efficiency; they intend to use these three techniques forthwith; 4) these teachers appreciate the need for industrial orientation for technical learning in polytechnics; 5) they seek proper climate and necessary facilities in polytechnics plus the encouragement of their principals and other senior staff to translate their training into practice.

602 RAI K K: Teaching a poem. Rajasthan Board Journal of Education 1971, 7(2), 8-14. 8 ref.

The present study conducted on a random sample of 100 teachers (85 taught a Hindi poem and the rest 15 taught an English poem for class IX) showed that out of 85 teachers only 10% were able to create the appropriate atmosphere that motivated students to receive the setting of the poem and the situation whereas none of the 15 teachers who taught an English poem succeeded in this respect. The causes and remedial measures for this as well as for the poor recitation have been described. The suggestions are: 1) poetry teaching should have a liveliness and variety; 2) every poem requires a different treatment; 3) the teacher should study a poem at leisure and determine its nature, intentions, and unique characteristics; 4) choice of the poem should be in accordance with the level, depth, and standard of the class; 5) a poem should be read with due regard to all its components.

603 SELVARAJAN N: Team teaching. Technical Teacher 1971, 5, 62-8.

Discusses the characteristics and advantages of team teaching. The steps involved in planning of team teaching are: 1) deciding on the subject area for organising team teaching; 2) analysing the needs and requirements of the participating group of students and classifying them; 3) devising ways and means to maximise the utilisation of the instructional opportunities; and 4) laying down the procedures to be adopted for optimising learning effectiveness. The major elements of team teaching plan are cooperative planning, instruction and evaluation, student grouping for special purposes (large group instruction, small group discussion, directed private sutystudy) flexible daily schedule, use of teacher aids, recognition and utilisation of individual teacher talents, use of space, media and methods appropriate to the purpose and content of instruction. The three phases of team teaching process namely large group instruction, small group discussion and directed private study have been explained with illustrations. A team teaching programme on the topic "strain and stress" planned and prepared by the teacher trainees in Technical Teachers' Training Institute, Madras has been appended.

604 SUBRAMANIAN K: Testing written English at the postgraduate English level. Education Quarterly 1971, 23(2), 31, 32.

The following steps have been suggested for teaching postgraduate students to write English clearly and effectively: 1) providing exercises in precis writing - the students should be made to observe trite metaphors and phrases, roundabout expressions, ambiguous words, repetition of words, phrases and arguments, mixed constructions, inappropriate mixture of styles, confused and obscure sentences and mixed figures of speech in the passages; 2) giving training in the economic use of words - students should learn to narrow the scope of their composition to a limited number of words, to prepare the writing in an outline form, to construct suitable paragraphs and to use the language correctly; 3) imparting instructions regarding organised paragraphing the composition on the basis of the outline; 4) instructing the usage of punctuation marks; 5) developing in pupils a good style stressing simplicity, accuracy, precision, grace and ease.

605 **SREELAKSHMI GURURAJA**: Piagetian theory and preschool education. Journal of Education and Psychology 1971, 29(2), 133-6. 3 ref.

Discusses the significance of Piaget's theory to teaching strategies employed in preschool education. Piaget's developmental sequence gives a framework for planning and organization of curriculum and stresses the interaction of cognitive structures with experiences for promoting interest and developing understanding among children. Providing information with appropriate teaching material at the appropriate developmental level of the child would facilitate understanding. Thus the strategies employed in exposing the child to information in varied areas of knowledge must be in conformity with the child's stage of development. Though the teaching method employed depends on the nature of the subject taught, mere formal verbal instruction would prove ineffective. The child should, thus, be physically set on this environment and provided with transactional experiences rather than perceptual experiences. Social collaboration viz., exchange of opinions and discussions should be encouraged among children through group and cooperative activities for reducing egocentrism. At the preschool stage, logical thinking should also be developed among children.

606 **VERMA K K**: Subject specialists in schools. Educational India, 1971, 38(6), 186-7.

The need for changing the present practice of assigning multiple subject teaching to teachers has been stressed. Thus, instead of a single teacher handling several subjects, better teaching would be ensured if single subject specialist handles the teaching of the subject he has specialised. The advantages of having single subject teachers in secondary schools are as follows: 1) allotment of work would be rationalised and the work load of a teacher conveniently calculated; 2) teachers teaching a particular subject form a faculty and can exchange their experiences; 3) teachers would be better equipped with the subject content; 4) with an interest in the subject, the teachers could do action research and implement new ways of teaching and evaluation; 5) inservice programmes would be well organised; 6) effective evaluation of teachers' work could be made;

7) subject library in the school will be organised better;
8) recruiting, appointing and redesignating of teachers would be easier;
9) the school administration would be improved as the headmasters in the subject areas would share the supervisory duties of the principal. Suggestion has been made that teacher training syllabus should be modified as to permit the trainees to opt for one elective teaching subject instead of two and that a good grounding in general methodology of teaching and evaluation be provided to them.

TESTS AND MEASUREMENTS

607 **BASUMALLIK T:** Factor analysis of a selection test battery. Journal of Psychological Researches 1971, 15(2), 53-9. 12 ref.

Reports a factor analytic study of a selection test battery developed for use in the selection of students seeking admission to a post-graduate diploma course in management science. The battery consists of tests on mathematical comprehension, English knowledge and comprehension, quantitative reasoning, verbal reasoning, graph and table reading, and breadth of knowledge. Data for the study were obtained from a random sample of 200 out of 1,058 graduates/post-graduates who appeared for the selection test conducted on an all India basis. Inter correlations, means, standard deviations and reliabilities of tests were computed. The test was factor analysed by Lawley's method of maximum likelihood. Breadth of knowledge and graph and table reading were most specific tests while the others were high in common factor variance. For identification and interpretation of these factors, a rotation was used through the varimax analytical method developed by Kaiser and described by Harman. The rotation yielded a positive manifold but not a clear simple structure indicating the complexity of the test variables. However, the three factors identified were: 1) reasoning factor (R) involving verbal reasoning and quantitative reasoning; 2) Numerical factor (N) involving operations with numbers i.e. mathematical comprehension, quantitative reasoning and graph and table reading; and 3) verbal factor (V) involving English knowledge and comprehension, verbal reasoning and quantitative reasoning. Regression weights were determined for obtaining factor scores from test scores through Aitken's method of pivotal condensation. Finally, contributions of test variables to factor estimates were worked out.

608 CHATTERJI S, MUKERJEE M: Construction and development of a non-language test of verbal intelligence. Indian Journal of Psychology 1971, 46(3), 235-46. 3 ref.

Reports the construction and standardization of a non-language test of verbal intelligence meant to 1) serve as an equating test when various regional versions of a particular test are required to be developed in different languages for nation-wide use or 2) to identify cases where scholastic backwardness is due to linguistic difficulty and not due to lack of ability etc. Description of the item types to be included in the experimental form, plan of the experiment, collection of data for the purpose of item analysis, verification of the validity of the test have been given. Utilizing the items analysed, a revised final version of the non-language test has been assembled.

609 GHOSH E S K, SINHA D: Peer rating form for assessment of adjustment in children. Indian Journal of Psychology 1971, 46(3), 289-95. 8 ref.

Reports a technique called the Peer Rating Form (PRF) devised for analysing adjustment in children. The form uses peer ratings of 5 raters for each subject on a set of 15 trait lables which are related in a meaningful way to certain observable behaviour patterns of the subject indicative of their adjustment. The description of the PRF, has been given and the test-retest reliability of the PRF, the item reliability, the distribution of scores and validity against the ratings of teachers etc. have been analysed.

VOCATIONAL AND TECHNICAL EDUCATION

610 AGGARWAL S M: Technical education for tomorrow. Technical Teacher 1971, 5, 98-102.

The complex problems of pollution, congestion, noise etc., created by modern technology should be combated by preparing the students to face the problem of tomorrow and challenging them with real-world open-ended situations which involve human needs and social significance. The nature of the problems to be faced by a technologist of tomorrow, requires an interdisciplinary approach. Educators and curriculum planners should provide a curriculum that a technician should not only have a deep study in his subject (micro approach), but should also be acquainted with the related fields (macro approach). Technologists should also solve the complex problems by keeping a balanced ecosystem which is a complex of ecological community and environment forming a functioning whole in nature. Thus, the knowledge of present ecosystem and ecological behaviour of environmental elements is essential for technicians. Team spirit should be fostered among technicians and project design approach should be practised in technical schools. However, a supervisor should guide the team work to maximum efficiency and minimum waste. The following modifications have been suggested for the recommended practices meted out by the planners of technical education: 1) project design course in technical education programme should involve co-ordination among students, the faculty and industry and the other outside professionals; the project should be open-ended emphasising innovation creativity on the part of the students; 2) a consultancy-cum-workshop service should be planned in technical colleges to achieve active participation of students; 3) apprenticeship should be encouraged by the industries to provide practical professional experience to pupils.

611 ANNUAL CONFERENCE OF THE INDIAN ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL EDUCATION, 10TH TIRUPATI, 8-10 JANUARY 1971: / Proceedings /. Indian Journal of Medical Education 1971, 10(2,3), viii, 156p.

The theme of the conference was 'role of health professions in population problems'. The theme was covered under four topics: 1) demography in education of health profession; 2) reproductive biology; 3) demography and fertility control in curriculum; 4) community health services and family planning. A total of 41 papers were presented. The following recommendations were made: 1) strenghtening the training in a) demography, and b) reproductive biology; 2) revision of undergraduate medical curriculum so as to meet the fast changing needs of the society; 3) teacher preparation through a) orientation courses, and b) travelling seminars; 4) appointment of teachers on the medical college staff who are trained in a) statistics and demography, and b) reproductive biology; 5) emphasis on integrated teaching on both the topics to cover pre, para and clinical year; 6) strengthening of resources like urban and rural practice fields attached to each medical college; 7) preparation of teacher aids, slides, films, filmstrips; 8) organization of research cell to support the teaching programme; 9) provision of incentives to students interested in these subjects.

612 **BASOLE** M M, **BANERJEE** M, **SARKAR** H, MAITRA S: Project of final year civil engineering students. Technical Teacher 1971, 5, 51-5. 3 ref.

Describes a project work undertaken by the final year students of 1969-70 batch of the Regional Engineering College, Durgapur in addition to their laboratory research work. The project was designed in compliance with the recommendations of All India Council for Technical Education for providing an opportunity to students to synthesize the aspects of design, and utilize the knowledge of theory to solve the open-ended problems. The various stages of the project work have been described.

613 **DEVON R F:** For whom the engineer toils. Economic and Political Weekly 1971, 6(48), 2395-2404. 38 ref.

The manpower model in its policy form applied to higher technical education implicitly sees the individual engineer as an industrial number compensated with certain privileges. No consideration is given to the personal development of the engineer and his education does not enable him to improve his performance as a social actor. Attempts to allot a small percentage of the curricular time to courses in the humanities and social sciences are laudable but not sufficient. A philosophy of technical education is needed and it can be developed from the consideration that an engineer should act ethically in his work. An engineer requires the knowledge that will enable him to understand the physical and social consequences of his actions. The political implications of higher technical education also cannot be overlooked. Engineers have a higher propensity for mobility to the highest ranks of industry. It is suggested that instead of a five-year engineering degree course, the education could be given in two degrees. The first course could be of about four years duration and lead to a first degree in arts, science and technology. About half of the curriculum could be devoted to mathematics, science and engineering courses and the rest of the curriculum would be in the humanities and social sciences. To graduate as an engineer in this system would then require two more years mainly devoted to specialising in a particular field of engineering.

614 **GANAPATHY S:** Some aspects of the quality improvement of teaching and training in technical institutions in Kerala. Technical Teacher 1971, 5, 95-7.

The suggestions for improvement are as follows: 1) the students for the technical institutions should be selected on the basis of aptitudes and by conducting a selection examination giving due weightage for the performance in their qualifying examination; 2) teachers with genuine interest in teaching profession should be selected and offered training and guidance; 3) the technical institutions should be properly equipped with modern gadgets to suit the modern needs of the industries; 4) evaluation of students' performance should be made rigid and internal and external assessment should be made more frequent and regular for the purpose of maintaining the standards; any resistance by pupils to rigid evaluation and the examinations should be checked by technical educationists; 6) technical institutions should be coordinated with industries to ensure jobs to pupils.

615 NATARAJAN M A: Training technicians for higher productivity. Technical Teacher 1971, 5, 56-61.

The main duties and responsibilities of technicians in industries have been detailed and the need for basing the technician programmes on the knowledge of technician jobs has been stressed. The basic tool used for finding the information about technician duties is job analysis studies. The revised curriculum for technician training programme could be formulated by utilising the resultant data on knowledge and skills content obtained from a number of job analysis studies. However, the polytechnics have realised the need for revising their curriculum to suit the needs of the industries. Joint cooperative venture of industries and polytechnics is sought for developing curriculum for technician programmes. Training activity in polytechnics should be treated as a management activity of an industrial concern for providing purposeful training at a minimum cost within a stipulated time. The management control cycle has been described as: 1) management of the training under the principal and two representatives of the industry; 2) definition of the objectives of training; 3) planning the schedule of training; 4) action stage where plans are put to operation; 5) control of the programme by measurement of performance against standards at proper levels and by the feed back technique. Technician education, thus geared to meet the changing needs of the industry would help develop the economy of the country.

616 PANSARE K T: Follow-up study of the diploma students in different branches of engineering and architecture passed in April, 1969. Vocational Guidance Newsletter 1971, 89, 5-43.

One hundred and fifty diploma students in various branches of engineering and architecture in Bombay constituted the sample for the study. The main purpose of the study was to find out the motivation of pupils behind choosing the course, the time required to complete the course, the plans to study further abroad, the special merits shown while doing the course, the number of pupils employed, the means adopted for securing the employment, the income of those employed, the attitude of diploma holders towards the work etc. The data for the study were collected through interviews and questionnaires. Analysis of the data led to the following findings: 1) employment prospects and nature of work were two important motives behind choosing the course; 2) majority of engineering pupils completed their course in time while architect students had a gap of 3 to 6 years in finishing their course; 3) majority of engineers had the desire to do A.M.I.E. while architects A.R.I.B.A.; 4) students wished to go abroad for doing B.S. or M.S. (Engg.), production engineering, urban planning etc.; 5) many students secured class, distinction, scholarship or medals; 6) majority of pupils secured jobs in 6 months and the means adopted for securing jobs were through advertisement, personal contacts or influence; 7) the average pay of fresh diploma holders was Rs.300 to Rs.400 per month; 8) majority were satisfied with their jobs.

617 **RAGHVENDRA BHAT N**: Problems of mathematics education in polytechnics. Technical Teacher 1971, 5, 35-7. 5 ref.

The problems are: 1) the low level of attainment in mathematics of the entrants to the polytechnics; 2) absence of awareness of the precise objectives of mathematics teaching and of the type and extent of mathematics needed in the curriculum; 3) inadequate teaching of science and mathematics at polytechnics; 4) faulty teaching methods employed for teaching mathematics. The following remedial measures are suggested: 1) the curriculum should be based on the aims of teaching mathematics to technicians viz. ability to construct mathematical models in understanding engineering problems and the ability to solve simple problems using relevant mathematical methods; such a curriculum would motivate pupils to learn mathematics and promote their confidence in its use as a tool; 2) mathematics teachers should coordinate with their other engineering teaching staff and prepare problems of interest to pupils; teachers of mathematics should acquaint themselves of the engineering applications of mathematics. The teachers should be given orientation courses in the subject to promote necessary changes in content and methodology; 3) modern and effective teaching methods including programmed instruction and project method should be utilised for effective teaching.

618 **SCHROFF M L**: Need for job-oriented teaching. Indian Journal of Pharmaceutical Education 1971, 5(2), 8-10.

Job-oriented teaching of pharmacy has been suggested to ensure employment for all pharmacy students. Some of the suggestions made are: 1) giving importance to hospital pharmacy courses like drugs, and disinfection and sterilization; 2) integrating diploma and degree courses, and enabling diploma holders to get their B.Pharm. degree in three years; however, the necessary prerequisite to do this is to upgrade the teaching of basic subjects at the diploma level; 3) placing greater emphasis on principles than on facts.

619 **SREEPATHY V**: Project technology in polytechnics. Technical Teacher 1971, 5, 103-6.

Inclusion of project technology in the polytechnic curriculum has been suggested for fulfilling the needs of the industry. The steps involved in the project have been briefly discussed and the role of the teachers in guiding the pupils in the project work has been stated. Thus, the teacher should i) devote limited time to each team in order that the teams work with their own initiative; ii) teach the theoretical knowledge which is the basis of the project work; this knowledge should be taught supported by constructional techniques available to the learners; and iii) check the project reports regularly. The project technology i) helps the learner to apply his mental process rationally, logically and analytically, ii) develops self-confidence, iii) stimulates the development of his creative abilities and decision making, iv) provides experiences in the daily problems of life related to technology, v) secures the confidence of the industry to employ technicians from polytechnics. The projects such as thermocouple welding unit, creep testing machine etc. undertaken at the Mechanical Engineering Department of the TTTI, Madras, have been described and a few projects in Mechanical, Civil and Electrical Engineering have been suggested.

620 **SREEPATHY V**: Teaching aids for engineering drawing. Technical Teacher 1971, 5, 69-72.

Describes a few teaching aids such as apparatus to teach first and third angle projection, viewing boxes, chalk borboard drafter, chalk board compass developed in Technical Teachers' Training Institute, Madras, to teach concepts in engineering drawing.

621 **SRIRENGAN K**: Development of programmed instruction materials for the polytechnics for the 70's. Technical Teacher 1971, 5, 73-81. 6 ref.

The advantages of programmed instruction have been listed and the steps taken by the Technical Teachers' Training Institute, (TTTI) Madras, for preparing programmed booklets on various topics in electrical engineering, mathematics and applied mechanics, suitable for direct adoption in classrooms in polytechnics described. General instructions to teachers and to students regarding the use of the booklets and the sequence to be adopted by teachers while administering the programme have been given. The schemes taken up by TTTI for acquainting polytechnics in the country with the methods of utilizing the programmed lesson have been listed. A plea has been made that TTTI or the Curriculum Development Centres should bring out the best programmed lessons on various topics. The following plans for preparation of further materials have been presented: 1) the grant from Indian Society for Technical Education (ISTE) and USAID be used for organising 'programme writing workshop' during vacations for teachers in various subjects; 2) polytechnic teachers be invited to participate in the programmes organised at TTTI under quality improvement programme funds of Government of India; 3) local teachers be invited to TTTI for one day a week/week end courses; 4) curriculum development cell at TTTI could set up an independent programme writing unit; 5) lessons be prepared on production processes, maintenance schedules, fault finding and rectification procedures etc. to aid industries and familiarise the practices into curriculum of the polytechnics; such schemes promote cooperation among people in industry and education. Lists of prepared programmed booklets on topics in electrical engineering, mathematics and applied mechanics have been appended.

622 Technical teaching aids and kits. Technical Teacher 1971, 5, 82-90.

Gives an account of mobile demonstration trolleys for science, electrical engineering, mechanical engineering and hydraulics and a general purpose trolley designed by the faculty staff of Technical Teachers' Training Institute, Madras, for the use of technical teachers in classrooms to supplement classroom lectures with practical demonstration experiment.

WASTAGE AND STAGNATION

623 KAUL G N: Reducing wastage and stagnation, an appraisal and a strategy. Quest in Education 1971, 8(4), 189-98.

The various possible criteria on which one could base the measurement of wastage have been discussed. The urgent need to develop valid criteria or norms against which wastage could be scientifically measured is stressed. The primary requisite is to define clearly wastage and stagnation. It is observed that the strategy employed to find out the extent of incidence and causes of the problem would be slightly different from the one needed for finding out the solution to the problem. Thus, to find a solution, it would be needed to explore ways and means under which potential dropouts could be spotted and the reasons for their being so. With regard to the reduction of wastage and stagnation the possibilities of schools and educators are limited. Thus, remedying the economic causes of wastage is beyond the purview of schools. To the extent to which academic causes are responsible for stagnation, the schools and educators can devise ways and means of tackling the problem. The environment in which schools and students are situated is an important factor with regard to stagnation. This aspect also should be explored. The factor which is essentially educational is the curriculum. It should be seen that the curriculum reflects the needs and aspirations of the people in each area.

WOMEN'S EDUCATION

624 ASIAN REGIONAL SEMINAR ON THE TRAINING OF CADRES TO COMBAT ILLITERACY AMONG WOMEN AND EDUCATE THEM FOR PARTICIPATION IN THE ECONOMIC, SOCIAL AND CULTURAL DEVELOPMENT OF THEIR COUNTRIES, NEW DELHI, 1-9 NOVEMBER 1971: ∠ Recommendations_/. Delhi, National Federation of Indian Women, 1971 ∠ various pagination_/.

The following are the recommendations: There should be firm National Policy to take all steps to eradicate illiteracy among women.

Special background studies for different groups of target population is necessary to make functional literacy successful. In addition to general literacy, hygiene and dietetics, family planning, bringing up children, handicrafts, scientific outlook, laws covering women's rights, should be covered. The government should utilise the mass media of press, film, radio and television for motivation and promotional work and should initiate pilot projects as early as possible. The 'cadres' include planning level personnel, operational level personnel and community leaders. These personnel need orientation and should be exposed to the various problems in the field. The Government is responsible for financial support, for the training of literacy workers and for setting up the approaches needed for coordination of the work with various departments, agencies and voluntary organizations for carrying out the programme. Promotional and motivational programmes should be diversified according to the interests of each target population. Inexpensive and attractive literature, mobile libraries and reading rooms should be provided to sustain literacy. A programme of free, universal primary education should be implemented.

625 **RAI S:** Women's education in villages. Social Welfare 1971, 18(8), 19.

The main reasons for the negative attitude of parents to send their daughters to schools in rural areas are the presence of only male teachers in schools and absence of separate schools for girls. To overcome the problem, staffing the rural schools with equal number of male and female teachers, employing only women in single teacher schools in rural areas, recruiting a married couple as teachers in two teacher schools, utilizing the services of the wife of the male teacher in the form of school mother, and raising the age of recruitment for women from 25 to 40 years so that a large number of women teachers would be available to work in single teacher schools in villages, etc., have been suggested.

626 **SHARMA O P:** Regional variation in rural female literacy. Economic Times 6 December 1971, p. 7, cols. 1-3; p. 8, cols. 5-8. 2600 words.

Female literacy rate is studied from the 1971 census. Though the rate of literacy for the total female population was 18.44%, it was only 12.92% in the case of females living in villages as against 41.91% living in towns. It is pointed out that the rise in female literacy rate is mainly due to concentration of efforts in the urban areas. There are 10 States and Union Territories which have lower rate of female literacy in rural areas as compared to the national rural average of 12.92%. These 10 States and Union Territories contribute more than 53% of the rural female population. Making a district-wise study, it is found that in

196 out of 352 districts in the country, the percentage of rural female literacy is less than 10. Only 8.81% of the rural female population lives in rural parts of the 32 districts which have literacy rate of 25.01% and above. The areas of low rural female literacy constitute large and solid contiguous blocks of territory, sometimes cutting across State boundaries.

WORKERS' EDUCATION

627 Recommendations of the Estimates Committee on Workers Education. Workers Education 1971, November, 1-5, 29-34.

The Estimates Committee of the Parliament examined the workers education programme and submitted its fourth report to the fifth Lok Sabha in July 1971. The summary of recommendations/conclusions contained in the report have been given.

List of Periodicals Abstracted

Bulletin of the West Bengal Headmasters' Association 1971: V 20, No 9
Economic and Political Weekly 1971: V 6, Nos 39, 40, 47, 48
Education 1971: V 50, No 10
Education and Psychology Review 1971: V 11, Nos 2-3
Education Quarterly 1971: V 23, Nos 1, 2
Educational India 1971: V 38, Nos 2-6
Educational Review 1971: V 77, Nos 8, 10
Indian Journal of Adult Education 1971: V 32, Nos 10, 11
Indian Journal of Medical Education 1971: V 10, Nos 2-3
Indian Journal of Mental Retardation 1972: V 5, No 1
Indian Journal of Pharmaceutical Education 1971: V 5, No 2
Indian Journal of Psychology 1971: V 46, No 3
Indian Publisher and Bookseller 1971: V 21, Nos 9, 10
Institute News, Asian Institute of Educational Planning and
   Administration 1971: April-September
Journal of Education and Psychology 1971: V 29, Nos 2, 3
Journal of English Language Teaching 1971: V 6, No 4
Journal of the Gujarat Research Society 1971: V 33, No 3/131
Journal of Psychological Researches 1971: V 15, Nos 2, 3
Mainstream 1971: V 10, Nos 6, 13
Manpower Journal 1971: V 7, Nos 1-2
Mathematics Education 1971: V 5, No 3
Modern Review 1971: V 128, No 10
Naya Shikshak (Teacher To-day) 1971: V 14, No 1
Quest 1971: No 72
Quest in Education 1971: V 8, No 4
Rajasthan Board Journal of Education 1971: V 7, No 2
Science Resource Letter 1971: V 4, No 3
Social Action 1971: V 21, No 4
Social Welfare 1971: V 18, Nos 6, 8
Teachers' Journal 1971: V 50, No 11
Technical Manpower 1971: V 13, No 10
Technical Teacher 1971: No 5
University News 1971: V 9, Nos 10-12
Vocational Guidance Newsletter 1971: No 89
Workers Education 1971: November
Yojana 1971: V 15, No 23

Newspapers:

Assam Tribune: 17, 31 October; 7, 21 November 1971
Bharat Jyoti: 10 October 1971
Economic Times: 17 October; 6 December 1971
Hindu: 20 October; 3 November; 1, 21, 22, 24 December 1971
Hitavada: 3 October 1971

SPECIAL SECTION

BASIC EDUCATION – II

A102 AVINASHILINGAM CHETTIAR T S: Birth and growth of Basic education, 1937-1961. (In Indian year book of education 1964, second year book – elementary education. Delhi, National Council of Educational Research and Training 1964. 58–83).

Gandhiji presented the scheme of Basic education at the conference of educationists in Wardha in 1937. The underlying principle of Basic education is that the educational system should be based on work and on the dignity of manual labour. Zakir Hussain Committee prepared a detailed syllabus for Basic education. The Indian National Congress accepted the scheme as its programme of national education in its Haripura session, 1938. An intellect developed through the medium of socially useful manual labour must of necessity become an instrument of service. The highly valued social qualities of team work, good neighbourliness and community-consciousness are developed. Important landmarks in the growth and development of Basic education during 1938-1961 are: 1) the establishment of Hindustani Talimi Sangh in 1938; 2) the plan for post-war educational development in India prepared by the Central Advisory Board of Education in 1944 accepting the principles underlying Basic education; 3) holding of the conference on National Education at Sevagram in 1945; 4) Pires-Lakhani Report. The self-supporting aspect of Basic education has always been opposed by many. Further, Basic education has been misunderstood by many and this has harmed its progress. The Assessment Committee on Basic Education (1956) expressed its satisfaction at the general progress shown by Basic schools. Its most important recommendation was the 'orientation programme' the object of which was to orient all schools to the basic pattern in a snap and short-range programme. The causes of resistance to Basic education as found by a survey conducted by the Rama Krishna Mission Vidyalaya Teachers College, Coimbatore are: 1) the belief that academic standards are lower in Basic schools; 2) the general resistance to craft work; 3) want of facilities to do craft work and to conduct other aspects of school work efficiently.

A103 DHAR J N: Factors impeding the growth of Basic education. Educational India 1962, 28(10), 307-10.

According to the author, non-availability of finances is partly responsible for the slow progress of basic education. But it is wrong to say that this is the main reason for the stalemate in the field of education. The other reasons that are usually given are a) the non-availability of equipment, and b) non-availability of trained teachers. Though the presence of all these factors does hamper the progress, there are some other fundamental difficulties which come in the way. Some of these difficulties are: i) the existence of a dual system of education, one of them especially confined to the rural areas, leads to the confusion in the public mind regarding relative efficiency of the two systems but also results in the people, especially of rural areas, having doubts about the efficacy of the Basic system of education; ii) the people in general have still certain social prejudices and also various views about the pattern that economic development of the country should have which, as they seem to think, Basic education would not be able to bring about; iii) Basic school further visualises a definite economic set up; the present trend being towards large-scale industrialization, people have doubts regarding the suitability of this system for national development, for it is believed that Basic education with its emphasis on village industries aims at putting the clock back; iv) the present administrative set up also contributes to the slowing down of the progress of Basic education; v) another major difficulty appears to be the absence of well-conducted research in the field of Basic education as well as the absence of an adequate machinery to disseminate information about research results on an extensive scale.

A104 INDIA. MINISTRY OF EDUCATION, ASSESSMENT COMMITTEE ON BASIC EDUCATION: Report. Delhi, Manager of Publications, 1965. 89p.

The Committee was appointed to survey the existing situation regarding Basic education in the various States and to think out ways and means of bringing about effective improvements. The Committee recommended inter alia that there should be a clear declaration of policy concerning Basic education by the various State governments. Such declaration of policy should include well regulated plans for converting all elementary schools into the Basic pattern within a stipulated period as well as for dovetailing Basic with secondary and university stages of education. Departments of education must then be instructed to carry out such plans. This would necessitate a twofold line of development: 1) improvement of Basic training schools and Basic schools already existing and adding to their number steadily; 2) progressive conversion of all elementary schools as a whole into Basic schools by introducing into them various aspects of Basic education except the technique of correlation which will have to wait for trained teachers. Public cooperation is essential for developing Basic education. For this the public have to be educated about the various aspects of Basic education.

A105 KOSHY T A: Research in Basic and social education. (In Adaval S B Ed. Third Indian year book of education - educational research. New Delhi, National Council of Educational Research and Training, 1968. 275-83).

The professional institutions, individuals and organizations have conducted a little over 20 research studies on Basic education. Out of a total of 3000 dissertations for doctoral or master's degree in education during 1939 to 1961, about 90 are exclusively in Basic education. These studies cover the following areas of research relating to Basic education: i) conceptual explanations and philosophical foundations, ii) psychological foundations; iii) sociological foundation, iv) economic implications of the scheme, v) curriculum and method of teaching, vi) community life, vii) evaluation and measurement, viii) teacher education, ix) attitudes towards basic education.

A106 LUKE C: Anatomy of Basic education. Shiksha 1962, 16(4), 63-8.

It is felt that the lack of scientific approach and inquiry in Basic education is primarily due to the inadequacy of both action research by the practitioners and foundamental or basic research by the professional investigators. In the absence of such research and investigation, the approach to Basic education has been more sentimental than scientific. But the steps taken at the all-India level including the establishment of the National Institute of Basic education will go a long way in studying this system of education scientifically. To call Gandhiji's Basic method of education as a break-away from the past educational theories is not correct. In educational ideas he was progressive but not a rebel. The Basic education has taken into account the physical environment and social environment of the child along with the principle of learning by doing some craft. Craft activity for children has proved very effective in motivating the whole being of the child by fully co-ordinating the work of his hand, head and heart. Besides this, children in Basic schools undertake community work and projects and participate in some cultural and artistic activities. These activities help them to acquire skills, attitudes and habits from actions and knowledge necessary for the harmonious development of their personality. The process of learning through crafts gives wider freedom both to the pupil and his teacher and that freedom does not degenerate into indiscipline for indiscipline comes from frustration and from disuse or misuse of a child's powers, instincts and energy. The writer disagrees with the view held by some people who regard Basic education "as the base" only. According to him, it comprehends the whole pyramid of education. It is more a way of life than a mere system of teaching children in schools. Mahatma Gandhi's cardinal principles of truth and non-violence, the ideals of Sarvodaya and Panch Sheel permeate the philosophy, practices and procedures of Basic education.

A107 PATHAK P D: Basic śikṣā manovijñān (= Basic education psychology). [Hindi]. Agra, Vinod Pustak Mandir 1970, v, 160p.

Text book for Basic Training Certificate. The subject is discussed under the following heads: 1) psychology and educational psychology; 2) education and psychology; 3) meaning and stages of development; 4) infancy - characteristics and education; 5) childhood - characteristics and education; 6) adolescence - characteristics and education; 7) physical development and factors influencing it; 8) mental development and factors influencing it; 9) social development and factors influencing it; 10) emotional development and factors influencing it; 11) heredity and environment; 12) motives of child behaviour; 13) instincts; 14) emotions; 15) general tendencies; 16) play and education 17) curiosity constructiveness, aggression, love and fear; 18) sentiments and character; 19) sensation and perception; 20) attention and interest; 21) memory and forgetfulness; 22) thinking imagination and day dreams; 23) intelligence and intelligence testing; 24) learning and habit.

A108 PATHAK P D: Basic śikṣā siddhānt aur śikṣaṇ kalā (= Basic education principles and teaching techniques). [Hindi]. Agra, Vinod Pustak Mandir, 1970. v, 173p.

Text book for Basic Training Certificate. Divided into two parts a) principles of education, and b) principles of teaching. First part discusses: 1) meaning and definition of education; 2) classification of aims of education; 3) important aims of education; 4) aims of education in modern India; 5) philosophy and education; 6) philosophical bases of education; 7) psychological bases of education; 8) sociological bases of education; 9) education and society; 10) school and society; 11) school and community; 12) Basic education; 13) play-way in education; 14) project method; 15) Montessori method; 16) unit technique. Second part describes: 1) qualities of a good teacher; 2) class teaching and individual teaching; 3) inductive and deductive methods; 4) Herbart's five steps of method; 5) Heuristic method; 6) devices of teaching; 7) questions and answers; 8) teaching aids.

A109 PATHAK P D: Basic vidyālaya saṁgaṭhan svāsthya śikṣā tathā sāmudāyik saṁgaṭhan (= Basic school organization health education and community organization). [Hindi]. Agra, Vinod Pustak Mandir, 1970. vii, 232p.

Textbook for Basic Training Certificate. Contains three parts a) school organization; b) health education; and c) community organization. First part describes the following 1) frame work of educational organization and supervision in U.P.; 2) roles of Government, Zila Parishad and Nagarpalika; 3) qualities, duties and responsibilities of headmaster; 4) teacher, staff council and managing body; 5) students' admission, classification and promotion; 6) school records; 7) time-table and multiple class teaching; 8) discipline, control and freedom; 9) punishment and reward; 10) democratisation of school administration and pupils' self-government; 11) pupils' activities - cocurricular activities; 12) corporate life in school and Basic school as a community centre; 13) library, museum and laboratory. Part two contains the following: 1) health education in school and role of teachers; 2) growth of the child; 3) physical training and organised games and sports; 4) balanced diet and malnutrition; 5) major communicable diseases; 6) cleanliness of home and school; 7) personal hygiene and cleanliness; 8) safety and first aid; 9) posture and fatigue. Third part discusses the following: 1) community development programme; 2) agricultural extension, intensive farming and grow more food campaigns 3) development block, democratic decentralization, three tier system, Zila Parishad, Kshettra Samiti and Gram Sabha; 4) Gram Panchayat and Nyaya Panchayat; 5) adult education; 6) school-community relationships; 7) school improvement programme by training institutions; 8) education in Five Year Plans.

A110 QADRI A W B: Craft in Basic education. Bunyadi Talim 1963, 6(3), 112-14.

The place of craft in Basic education is often misunderstood. It is high time that the people were re-oriented to the role it is supposed to play in Basic education. Activity is the essence of child life. Craft or productive work makes the activity of the child meaningful and ensures for him a high standard of attainment in different subjects. Current emphasis on the promotion of science teaching at the secondary stage of education is often advanced as an argument against use of craft in Basic education. Instead of weakening the case for craft, such an argument indirectly strengthens its position, for, crafts provide training of the senses and coordination of hands and eyes. This will prepare the child better for later scientific and technical training. What is actually required is not to rid Basic education of its crafts but to introduce new crafts in keeping with the trends of the modern times.

A111 RAMAIAH D P: Basic education, need for amends. Educational India 1961, 27(8), 254, 255.

Basic education is not getting appropriate co-operation from the teachers and educational administrators. The reasons have been traced to some defects in the administration and training in the Basic training institutions. By way of eradicating those defects, the writer suggests that 1) Basic institutions should recruit staff trained in the system; 2) there should be less emphasis on craft activity, it being correlated with teaching in the most natural way; 3) instead of teachers teaching mechanically through a craft, their object should be to train children in such a way that they spontaneously correlate their experience; 4) the dogmatic following of Basic education makes it rigid and unprogressive. If the scheme is not to lose its vitality, changes should be incorporated in it conforming to the changes in the economic, political and social conditions in the country; 5) the teacher should undergo refresher courses from time to time to keep in touch with the latest trends in Basic education; 6) it is desirable that Basic schools be inspected by only those who are trained in Basic education methodology.

A112 RAMANA K V: Basic education. New Administrator 1964, 6(4), 28-31.

The principal idea behind Basic education is to impart education to the body, mind and the soul through the handicraft that is taught to the children. It is contended that education through the medium of a craft is more valuable than education imparted through books and formal classes. It is psychologically sound in so far as it is based on the principle of activity and balances the intellectual and practical elements of experience of the child. Socially considered, it engenders a true sense of dignity of labour and of human solidarity. Educationally, education through craft gives greater concreteness and reality to knowledge than is otherwise possible. But the ideal of Basic education seems to have been much diluted in practice. It has been reduced to monotonous and mechanical training of the child in a few useless handicrafts. There was a plethora of criticism against Basic education, especially against its self-supporting aspect. Most of these criticisms were effectively answered by Gandhiji himself. The scheme has come to stay. Under the three Five-Year Plans Basic education has been given its due importance and measures envisaged to put it on a sound basis. Basic education should be looked at not only as a revolution in education but should also be viewed as a radical and important revolution in the social, economic and psychological structure of the Indian society itself creating a new way of life.

A113 **RAMANATHAN G:** Education from Dewey to Gandhi – the theory of Basic education. Bombay, Asia Publishing House, 1962. viii, 308p.

The book deals only with the theory of Basic education. The book is divided into two parts. The first part is a statement of the problem and the second part is the text proper of the exposition of the theory of Basic education. The following are the chapter headings: 1) Genesis, 2) Dewey and Gandhi, 3) traditional schooling, 4) mass teaching, 5) teachers and examinations, 6) revolt against Dewey, 7) democracy in social evolution, 8) democracy in education, 9) general education, 10) triads in education, 11) integration, 12) adult occupations, 13) psychology of Basic education, 14) digital acuity, 15) correlation, 16) criteria for correlation, 17) self-supporting education, 18) industrialization, 19) community development and Basic education, 20) conspectus.

A114 **RUHELA S P:** Basic education. (In Uday Shankar, Ahluwalia S P Development of education in India 1947–1966. Kurukshetra, Kurukshetra University, 1967. 23–35). 11 ref.

Basic education was propounded as an innovation to regenerate the Indian society in all its aspects. The scheme was and is sound from cultural, social, economic, philosophical and psychological points of view, but it has not been properly understood and effectively implemented. Besides its soundness in principles, its association with a Gandhiji's name gave it the status of national system of education. After the initial enthusiasm it began to lose its position gradually. The ideals, values, faith, sincerity and attitudes which constitute the non-material or intangible aspects of Basic education have lagged far behind its material development in the form of growing number of institutions and teachers. Some of the significant causes for it are: the poor quality of first generation of educational administrators, disinterested urban youth being appointed as Basic school teachers in villages, lack of adequate provision for vertical mobility to the teaching profession, the snobbish attitude of the general public and their notion that Basic education lacks standard, hackneyed and parochial attitudes and practices adopted without attempts to modernise Basic education, etc. Besides the Government support, people's backing is needed if Basic education is to succeed.

A115 **SALAMATULLAH:** Basic education: retrospect and prospect (In Indian Year book of education 1964, second year book – elementary education. Delhi, National Council of Educational Research and Training, 1964. 306–36).

Gandhiji's Basic education was intended to be the spearhead of a silent social revolution. Quantitatively, this programme was to cover every boy and girl in the country. In terms of quality, it sought to build up the human personality from its very roots in a way that would at once be natural and effective. But, neither quantitatively nor qualitatively has Basic education made much headway. The factors which have impeded the progress of Basic education are: 1) lack of financial provision; 2) inadequate training for prospective teachers of Basic schools; 3) apathetic attitude of the public; 4) lack of systematic investigation into the various problems connected with Basic education. Basic education, being a better type of education would inevitably cost more. Under the existing circumstances it would be difficult for Basic education to attain universality by 1975-76. The following suggestions are given to vitalise Basic education so that it can develop gradually to establish itself ultimately as an improved system of elementary education on a nationwide scale: 1) besides improving existing Basic schools, there should be regular expansion programme; instead of introducing a craft right from the beginning, it would be advisable to be content with some handwork and activities upto 5th grade and introduce regular craft only in the upper three grades; this will ease the financial situation also; 2) there is need for orienting the existing schools towards Basic pattern so that their complete changeover at a later date becomes easy; 3) the curriculum of Basic schools should be determined by those needs of life which are common to all citizens; 4) in correlated teaching, the activity should be in accordance with the maturity level of the child, the knowledge imparted, integrally related to the activity, and the material taught through correlation, well-graded; 5) the post-Basic education must be integrated in the present system of secondary education; 6) a proper system of supervision should be devised to guide and help the Basic school teacher; 7) teacher education should be strengthened and there should be a model training institution in each district; 8) research organizations should be set up at national and State levels to investigate problems in the following areas: a) curriculum; b) methodology of teaching; c) craft and productivity; d) evaluation; and e) teacher education.

A116 **SALAMATULLAH:** Evaluation in Basic education. Delhi, Manager of Publications, 1961. 42p.

"Evaluation in Basic schools" is devoted to one aspect of the basic system of education, i.e., examination. The objective of assessment in Basic education is to secure an all-round development of the child's personality which the usual tools of measurement can hardly measure. In Basic education assessment must include many dimensions of the pupil's behaviour, all that goes into making a personality—health, skills, information, understanding, appreciations, attitudes, interests, etc. As commonly used tests cannot measure all these, the Basic system of education requires new techniques which will help identify the abilities and talents of students for classification and guidance in contradistinction to the function of the present examination system which only discovers the pupil's weaknesses and penalizes him. The present monograph discusses the types of technique the Basic school needs, the planning of a testing programme, its organizational requirements, and the urgency of reforms in examinations currently obtaining in Basic schools.

A117 **SALAMATULLAH**: Thoughts on Basic education. Bombay, Asia Publishing House, 1963. 112p.

After India's Independence Basic education was accepted both by the Union and the State Governments as the pattern of national education at the elementary stage. However, the implementation of the scheme presented a host of problems. Basic education has been criticised for various things, real and imaginary . If Basic education is to be practised effectively the primary need is to have a proper understanding of it. The book seeks to clarify the important aspects of Basic education. The topics discussed have been grouped under four heads: 1) meaning of Basic education; 2) matter and method of teaching; 3) organization and development; 4) teacher education.

A118 **SARAF S N**: Problems of the teaching staff of Basic training institutions. Naya Shikshak (Teacher Today) 1961, 4(1), 24-8.

A research study was conducted to find out whether Basic training institutions were manned by trained teachers with belief in and enthusiasm for Basic education and whether the salary scales and conditions of service offered to them were good enough to attract really talented people. The information was obtained through a questionnaire administered to 47 teachers of seven Basic training colleges. The results of the study indicated the following: i) most of the members of the staff in these colleges were not, strictly speaking, Basic-trained, their salaries and grades were not adequate enough which might attract right type of people to join their rank; ii) about 68 per cent of these teachers were found unable to give individual attention to their pupils due to heavy teaching load, and did not have separate libraries of their own; hence, it was difficult for them to follow the system of was assignments and tutorials which was generally favoured now-a-days as the best method of teaching and learning in training institutions; iii) about 87 per cent of the members of the staff stated that their posts were transferable and about 92 per cent pointed out that the system of transferring teachers from Basic training institutions to other institutions was defective; iv) generally there seemed to be no provision for giving stipends or scholarships to the members of the staff to go in for further study. Only about 8 per cent stated that they were deputed for further studies and training.

A119 **SOLANKI A B**: Technique of correlations in Basic education. Ahmedabad, Navajivan Publishing House, 1968. xv, 214p.

The technique of correlated teaching makes manual activity and craft-work the centre of the child's learning. It is through this medium that the child acquires and assimilates the relevant knowledge of correlated subjects. The aim of this study is to analyse the real position obtaining at present with regard to the practice of the technique of correlated teaching in Basic schools, to enumerate the several misconceptions regarding this technique, to analyse the causes and suggest remedies wherever possible. An attempt is also made in this study to clarify Gandhiji's ideas on correlation as also on the process, the medium and the types of correlation for the adoption of the right concept of correlation. The psychological and educational justifications of the technique of correlation have been discussed for understanding its right significance as a teaching technique. A few suggestions have been offered regarding: a) practice-teaching-cum-observation work of Basic training institutions, b) organization of Basic schools, c) place of the syllabus, time table, records and assessment work, in order to clarify the methodological aspects of the technique of correlation.

A120 SRIVASTAVA B: Kyā āpkā skūl Basic skūl hai? (= Is your school, a Basic school?) [Hindi]. Nai Talim 1971, 19(11), 491-5.

The characteristics of Basic schools have been outlined as under: 1) cleaning of class rooms and school compound by students for instilling in them the habit of cleanliness; 2) prayer for enobling their character; 3) joint dining and thereafter cleaning of utensils and dining place; 4) acquainting students with the basic rules of hygiene; 5) initiation of students in gardening, farming, weaving, spinning, carpentery etc.; 6) planning of all school activities with the cooperation of the students; 7) arrangement for gainful disposal of all school's agricultural and industrial products; 8) administration of school by students for teaching them the principles of democracy; 9) running of cooperative banks cooperative shops for the benefit of students; 10) arrangement of educational tours, seminars, scouting, drama, debates and other cultural activities for the personal development of students; 11) keepimg contact with neighbouring villages for rendering social service; 12) learning of students through work and observation instead of cramming; 13) acquainting students with the natural and social environment around the schools; 14) teaching the students to produce goods useful for the society and making them self-reliant.

A121 **VENKATASUBRAHMANYAN T R:** Basic education, its why and how. Bombay, Orient Longmans, 1964. 53p. 43 ref.

The book is a companion volume to others in the Basic Way Series. It tries to establish that Basic education contains a wholesome philosophy and that the Basic scheme provides the necessary means to achieve the purposes behind the philosophy. The following are the contents of the book: 1) why Basic education; 2) Basic education, schematic representation of aim, method etc.; 3) Basic education for better human relations and adjustment; 4) check list on aspects of human relations and adjustment; 5) Basic education for better citizenship; 6) individual score-card to rate traits of citizenship; 7) Basic education for better school-home-community relations; 8) opinion inventory for parents in school-home-community relations; 9) Basic education for better teacher-pupil relations; 10) teacher's self-rating sheet; 11) Basic education for better discipline; 12) self-rating by pupils; 13) Basic education for better all-round development; 14) cumulative record; 15) conclusion; 16) Balance sheet.